PERFORMANCE & FINANCING OF MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs) IN NIGERIA: IMPLICATION OF TRANSACTION COSTS AND COLLATERAL

OLUSEYE SAMUEL AJUWON

Dissertation presented for the degree of
Doctor of Philosophy in Development Finance
in the Faculty of Economics and Management Sciences
at Stellenbosch University

Supervisors: Professor Sylvanus Ikhide
&
Dr. Joseph Oscar Akotey

December 2019

DECLARATION

By submitting this thesis/dissertation electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third-party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

O.S. Ajuwon **December, 2019**

DEDICATION

I dedicate this study to GOD ALMIGHTY, the all sufficiency.

ACKNOWLEDGEMENTS

I give all glory, honour and adoration to the Almighty God (the Author and Finisher of my being). Thank you, Lord Jesus, for the strength, wisdom, faithfulness and mercy.

I would like to express my profound gratitude to my Supervisors: Prof. Sylvanus Ikhide, for his diligent guidance and counselling. Without his mentoring and valuable advice, I would not have completed this thesis. I also thank Dr Joseph Oscar Akotey for painstakingly reading all my manuscripts and for your encouragement and the belief you have in me. I also thank the faculty members of the University of Stellenbosch Business School (USB) for the various contributions and support throughout my studies, especially at the various colloquia and imbizo. I am also grateful to USB for the bursary award to complete my PhD study. I sincerely appreciate the University of Lagos, Nigeria, for giving me the opportunity to study and complete my PhD degree, and the TETFund PhD bursary I received.

I am eternally grateful to my dear wife, Phebe Ebedamere Ajuwon, my children (Daniel, Shalom and Florish-May). I thank my father, Elder, Chief Abraham Oladosu Ajuwon for the fatherly support. I also thank my siblings (especially my elder sister, Olabisi), Mother-, sisters- and brothers-in-law, and all my household members for their support, prayers and encouragement. My appreciation also goes to Professor and Mrs Meshach Ogunniyi.

To my PhD colleagues and friends, especially Foluso, Mccpowel, Paul, Tita, Fola, Monde, Michael, Master, Emmanuel, Mfusi, Edson, Jose, Susan, Seye, Sabastine, Lusanda, Calvin, Peiter, Nthabiseng, Berta, and the whole PhD cohort in development finance, for their moral support and benevolence. I am also very grateful to Mrs van Zyl Marietjie, Mrs Ashlene Appollis and Ms Chantel Maclons for the administrative support.

I sincerely appreciate the immense support and prayers of my pastors, Mr and Mrs Tunde Oyeneye, Mr and Mrs Abayomi Ireyomi of the Lifegate Redeemed Christian Church of God in Nigeria, and Mr and Mrs Mike Trollips, and the congregation of the Bellville Baptist Church, Western Cape, South Africa.

ABSTRACT

This thesis examines the performance of MSMEs in the Nigerian economy and how transaction costs and collateral constitute constraints to accessing finance for a better MSMEs performance. This thesis looks at the sources of financing for MSMEs in Nigeria, the performance of MSMEs in employment generation, output contribution and the implications of transaction costs and collateral on MSMEs access to finance in Nigeria. World Enterprise survey data was used to analyse the performance of MSMEs in employment generation, as well as MSMEs output contribution, using the non-parametric variance estimation of the locally-weighted scatterplot smoothing (LOWESS) method. For the analysis of transaction costs, and issues with collateral determinant, the survey method was used.

The thesis takes the form of five papers. The first paper enumerates the external sources of financing options available for MSMEs in Nigeria. The study also investigated the role of lending vis-à-vis stock markets especially for MSMEs, the Micro Finance Banks (MFBs) role and growth in Nigeria and lending to MSMEs to see if MFBs can mitigate the costs of lending to MSMEs. Finally, the major obstacles to bank lending to MSMEs, which are cumbersome application procedures, high interest rates, inaccessible collateral requirements and loan terms (maturities) were examined.

The second paper analysed the importance of MSMEs in employment generation. Using a non-parametric variance analysis on the data obtained from World Bank Enterprise Survey, the analyses found MSMEs to performed better than large firms in term of employment generation in the Nigerian economy, with micro and small size enterprises leading the way. This confirms Birch's (1979) claim that small businesses are the most important source of employment generation. We conclude that governments and other relevant stakeholders in developing countries such as Nigeria dealing with issues of high unemployment should consider MSME support and development as a necessary condition in their effort to reduce unemployment. Secondly, policymakers in developing countries such as Nigeria should provide the necessary infrastructure for MSMEs development through the creation of innovation hubs and clusters to enhance MSMEs' ability to generate more employment.

The third paper measured MSMEs' productivity growth rate using annual sales of firms from the World Bank enterprise survey data for Nigeria. The study employed the non-parametric variance estimation using the locally-weighted scatterplot smoothing (LOWESS) method on three sets of two-points data (2006 and 2003, 2008 and 2002, and finally 2012 and 2009) of annual fiscal sales for each category of firms (micro, small, medium and large) surveyed. The results showed that small businesses recorded high productivity growth rates in some subsectors of the economy that specialises in product customisation such as garment, metal works, and furniture. Therefore, this study validates the flexible specialisation theory of Piore and Sabel (1984) that emphasises the economic importance of MSMEs in the post-industrial era where product customisation is the new

order of production. The policy implication of the study is that any targeted intervention in the MSMEs sector designed to increase productivity must be channelled towards the subsector with the most employee specialisation as well as product customisation. Also, drawing from a synthesis of the flexible specialisation theory and pro-SME policy thesis, MSME production hubs similar to what is done in Silicon Valley and New York's garment district should be encouraged as this can help spur MSME output because it prompts easy knowledge transfer and skill adaptation.

The fourth paper investigated the impact of transaction costs in MSMEs access to finance. This was done by analysing transaction costs on access to credit from the view point of both MSMEs and financial institutions (commercial banks and microfinance banks). From the MSMEs' side, borrowing experience, decision lag, firm size and borrowers' distance to the loan office were investigated. On the financial institution's side, the costs of information gathering, loan administration, monitoring and loan enforcement were investigated. We used the questionnaire survey method, in-depth interviews and case studies, as well as the annual financial statements of the banks. We identified interest rate and collateral value as constraints to accessing finance for MSMEs. We also found financial institutions' attitude on MSMEs access to credit not being friendly. Financial institutions need to do more to bring down transaction costs of lending. This hopefully can be achieved by investing more in agent banking which would lower operating costs, as well as spreading risk, and ultimately increase credit intermediation to small businesses.

Finally, the fifth paper looked at how collateral affects MSMEs' access to credit facility from financial institutions. Using the questionnaire survey method and in-depth interviews, we found that collateral was a huge constraint to accessing finance with 45% of the firms surveyed revealing that collateral pledging has denied them access to debt financing from banking institutions. In the light of this finding, we believe that if the alternative collateral, explained in the chapter, is given proper consideration by all stakeholders, it would go a long way to reduce the problem of collateral as an obstacle to debt finance for MSMEs in Nigeria.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

ABS	Asset-Backed Security
ACGSF	Agricultural Credit Guarantee Scheme Fund
ACSS	Agricultural Credit Support Scheme
ADB-ESL	African Development Bank-Export Stimulation Loan
AERC	Africa Economic Research Consortium
AfDB	African Development Bank
ASCRAs	Accumulating Saving and Credit Associations
ASeM	Alternative Security Market
BoI	Bank of Industry
BRICS	Brazil, Russia, India, China, and South Africa
CAC	Corporate Affairs Commission
CACS	Commercial Agriculture Credit Scheme
CBN	Central Bank of Nigeria
CGAP	Consultative Group to Assist the Poor
CPI	Consumer Price Index
DFID	Department for International Development
DMBs	Deposit Money Banks
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
EU	European Union
FMA&WR	Federal Ministry of Agriculture and Water Resources
GDP	Gross Domestic Product
GFC	Global Financial Crisis
ICA	International Compliance Association
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
ILO	International Labour Organization
IMF	International Monetary Fund
LE	Large Enterprise
LIC	Low Income Countries
LOWESS	Locally-Weighted Scatterplot Smoothing
ME	Medium Enterprise
MENA	Middle-East and North Africa Region
MFBs	Micro Finance Banks
MFI	Micro Finance Institution
MSMEDF	Micro, Small and Medium Enterprises Development Fund

MSMEs	Micro, Small, and Medium Enterprises
NACRDB	Nigerian Agricultural Co-operative and Rural Development Bank
NBS	National Bureau of Statistics
NCR	National Credit regulator report
NGOs	Non-Government Organizations
NIM	Net Interest Margin
NPC	National Population Commission
NPLs	Non-performing loans
NPV	Net present value
NSE	Nigeria Stock Exchange
OECD	Organisation for Economic Cooperation and Development
ROSCAs	Rotating Savings and Credit Associations
RSSF	Real Sector Support Facility
SE	Small Enterprise
SMECGS	Small and Medium Enterprises Credit Guarantee Scheme
SMEDAN	Small and Medium Enterprises Development Agency of Nigeria
SMEEIS	Small and Medium Enterprise Equity Investment Scheme
SME-RRF	Small and Medium Enterprises Refinancing and Restructuring Fund
SMEs	Small and Medium-sized Enterprises
SSA	Sub-Saharan Africa
SWF	Sovereign Wealth Fund
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation
USAID	United States Agency for International Development
WBESD	World Bank Enterprise Survey Data
WHO	World Health Organisation
WTO	World Trade Organization

CHAPTER ONE
INTRODUCTION

1.0 BACKGROUND OF THE STUDY

Micro, Small and Medium Enterprises (MSMEs) are critical components of the economy that play crucial roles in the development process of a nation through the creation of employment opportunities and productivity growth. Central to performing these roles is their access to appropriate credit in a timely manner. MSMEs in most developing countries are mostly segmented out of the formal credit market due to perceived high risks, transactional costs and difficulties in providing tradable collateral (Kihimbo, Ayako & Omoka, 2012).

Transaction cost is the cost that both lenders and borrowers have to bear in order for the exchange of credit to take place. It is a cost that can prevent the credit market from operating efficiently or prevent the transaction from taking place: it only takes place whenever an intermediary finds a borrower for a price, which is expected to cover all costs of production, including direct and opportunity costs (Benston and Smith, 1976). On the lender's side, transaction costs involve the costs of information gathering, loan administration, enforcement and loan approval, while on the borrower's side, it includes all charges imposed by the lenders beyond the cost of capital (i.e. the interest rate). These include application fees, service fees, cost of the passport photograph, transportation cost, travel time spent in obtaining the loan, cost of phone calls, processing duration, among others. (Cuevas & Douglas, 1985).

The higher the transaction cost, the higher the cost of intermediation and the lower the credit facilities (Fachini, Ramirez & de Souza Lima, 2008). It has been observed that transaction costs in developing countries far exceed what is obtainable in developed economies (Igwe & Egbuson, 2013): this is the major reason why the constraint of access to finance is more pronounced in developing countries. This cost differential is not unconnected to paucity of infrastructure (there is no constant supply of electricity, roads are bad and congested etc), corruption of the government officials to mention but view.

Another issue of concern is the use of collateral to address the perceived high risk as posited by Bester (1985), who claims that low-risk borrowers are able to raise sufficient collateral to distinguish them from high-risk ones, while those who are unable to raise the collateral are considered risky. However, exogenous factors can and usually do violate Bester's assumptions in developing countries, and especially for MSMEs. This may be due to the restrictions on the resource endowment of honest borrowers, which may make them not to reveal their low riskiness through the pledging of sufficient collateral (Cuevas & Douglas, 1988). Bester further argue that banks can therefore freely adjust the interest rate on loan contracts to offer different combinations of interest rate and collateral

in order to clear the market. However, Stiglitz and Weiss (1981) argue that there is a limit on the interest rate that can be charged, which places a constraint on the range of explicit interest rates that banks can charge on loans.

The constraints call for mechanisms and procedures that allow for collateral substitution (e.g. additional information) and engage in implicit price setting to compensate for restrictions on loan rate differentiation. This involves establishing stringent procedures for credit allocation, monitoring, supervision and recovery that create huge transaction costs for both the lender and the borrower, which create credit rationing conditions that tend to constrain credit markets for MSMEs in developing countries.

The growth of MSMEs depend on their ability to overcome the credit constraints and develop their potential in physical and human capital. Investment in capital requires greater access to finance. Ogujiuba, Ohuche & Adenuga (2004) noted that lack of adequate and timely access to finance is a key obstacle to the growth and profitability of MSMEs in developing countries. The absence of efficient rural financial markets is another serious constraint on sustainable rural MSMEs development in developing countries. Financial access by MSMEs increase income through productive investment and help to create employment opportunities through an increase in MSMEs activities (Isern, Agbakoba, Flaming, Mantilla, Pellegrini & Tarazi, 2009).

To diagnose the problems inhibiting MSMEs in Nigeria, the government parastatals in Nigeria, called, Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and National Bureau of Statistics (NBS) in 2010 conducted a survey which found, among other things, that access to credit is the top priority area of assistance for MSMEs. Peter Bamkole, Director of Enterprise Development Centre, Pan-Atlantic University, listed six broad constraints that limit the growth of MSMEs in Nigeria using the “MISFIT” acronym to represent problems of access to Market, paucity of Infrastructure, inadequate Support services, constraint on access to Finance, Information and Technology. Bamkole submitted that of the six constraints, access to finance ranked the highest (KPMG, 2014).

In accessing finance, the most preferred external source of finance for MSMEs is a debt-financing option, as explained by the pecking order theory (Myers & Majluf, 1984) because of the ownership independence, tax holiday and other characteristics it offers. Commercial banks offer the highest chunk of debt finance in an economy (Abe, Troilo, Juneja & Narain, 2012). Bank lending to MSMEs is not without challenges: high transaction and administrative costs stemming from problems of asymmetric information and high-risk perception, and lack of collateral remain major constraints of MSMEs’ access to appropriate external financing. According to Isern et al. (2009), the main reasons Nigerian MSMEs give for not applying for loans from the banks are:

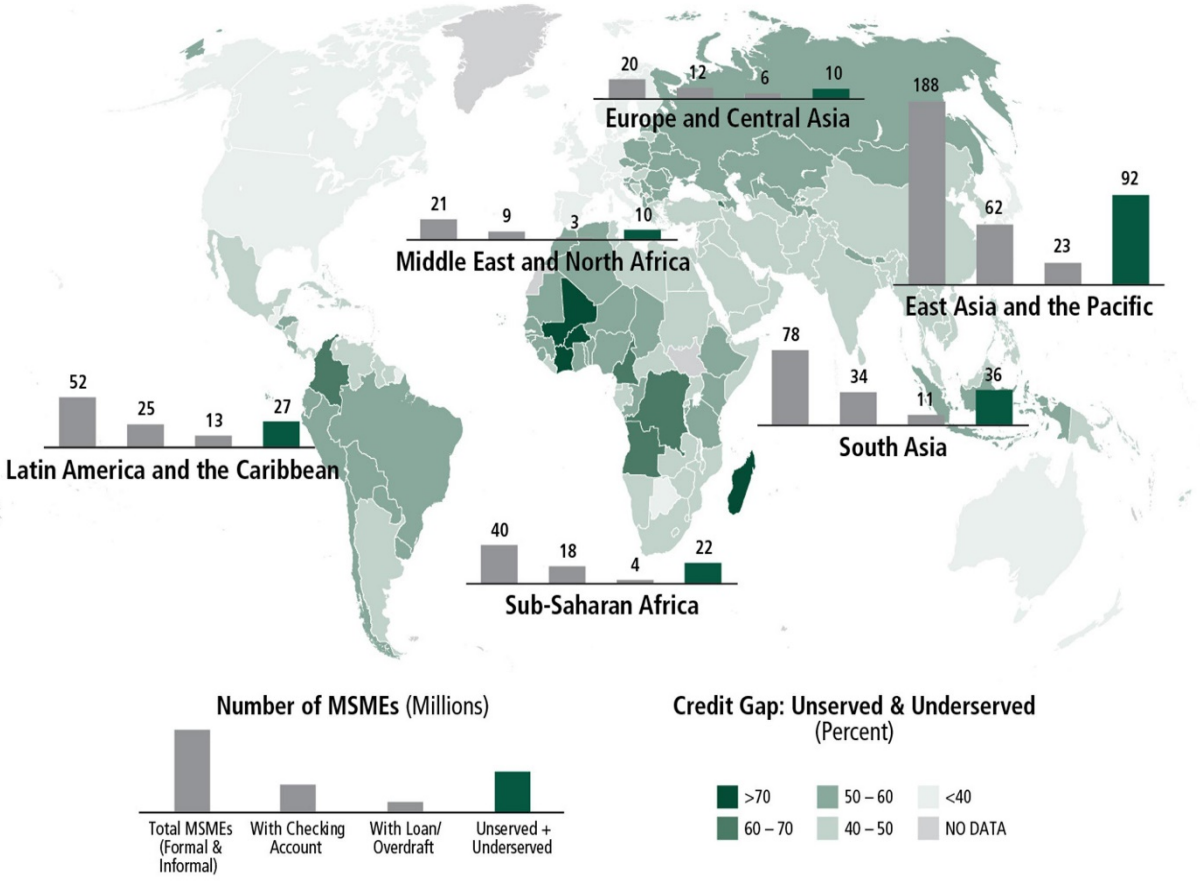
i. Cumbersome application procedures;
ii. High interest rates

iii. Inaccessible collateral requirement; and
iv. Loan terms (maturities) are much shorter than SMEs require.

The purpose of this study is to analyse the impact of transaction costs of obtaining credit from the perception of both the lenders (the commercial banks and Microfinance Institutions) and the borrower (the MSMEs), and to analyse the collateral on MSMEs' access to financing in Nigeria.

There are three main factors perceived to be the reasons why addressing the issue of transaction costs and collateral are important for MSMEs in developing countries, and specifically, Nigeria. First, IFC (2013a) shows that MSMEs in Africa and South Asia suffer the greatest credit gap in the world, as shown in Figure 1.1. Over 50% of MSMEs in Africa and south Asia have no access to financial credit. The credit gap for MSMEs in Sub-Saharan Africa alone is valued at between 140 and 170 billion U.S. dollars. This clearly demonstrates that access to finance is a source of perennial problems to MSMEs in Sub-Saharan Africa.

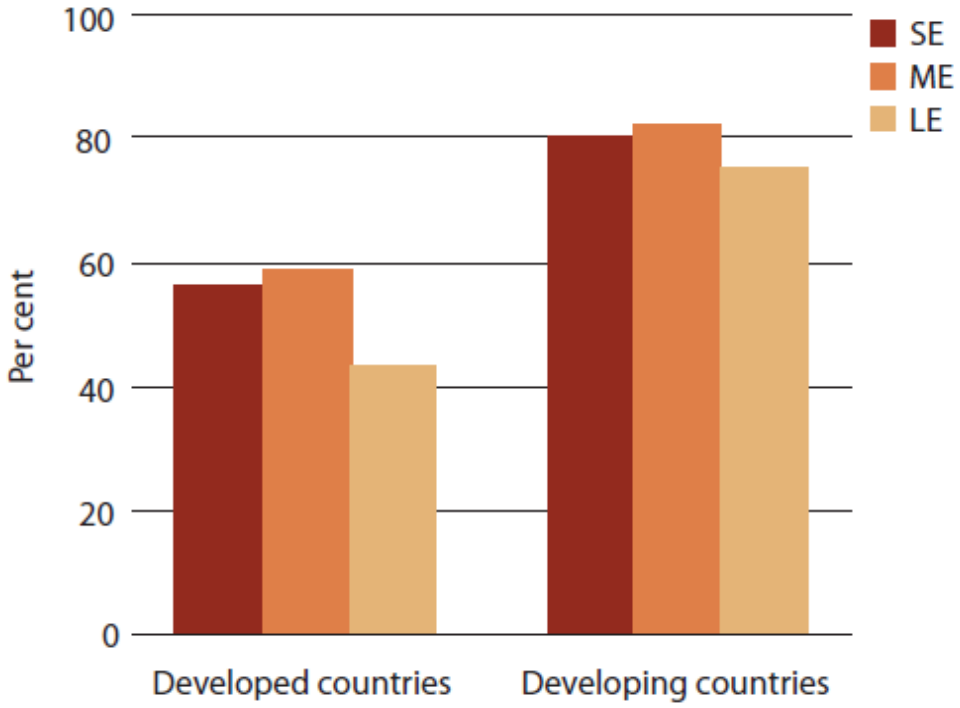
Figure 1.1: World MSMEs credit gap



Source: IFC (2013a)

Second, the International Finance Corporation (IFC, 2009) survey, observed that commercial banks in developing countries require more collateral for loans than those in developed countries, regardless of the firm size. In addition, the interest rates charged on loans in developing countries are almost double that in developed countries, whereas the non-performing loans were higher in developed countries than is obtainable in developing countries. The combination of banks not willing to take a risk and higher borrowing costs (environmental factors) implies a high transaction cost to borrowers in the credit market for developing countries, hence the focus on the transaction costs and collateral.

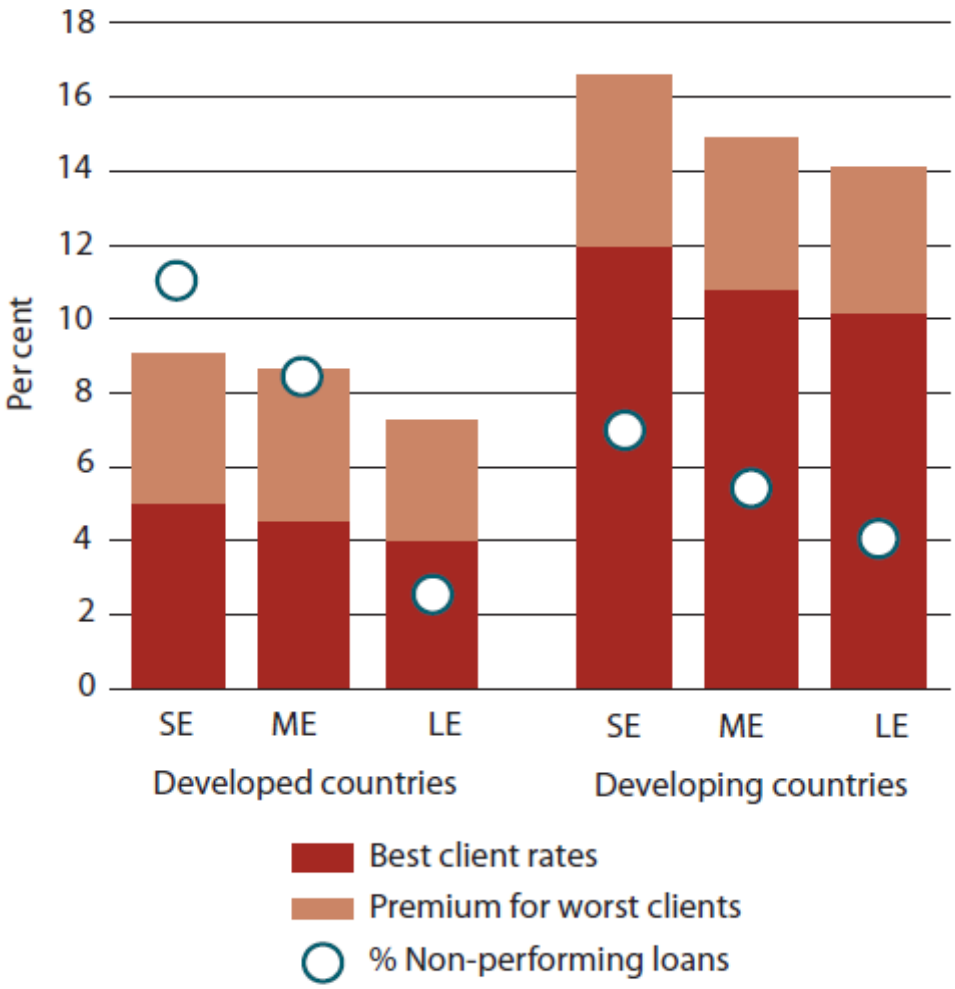
Figure 1.2: Collateral requirements for loans in developed and developing countries



Note: SE, ME and LE stand for Small Enterprise, Medium Enterprise, and Large Enterprise respectively.

Source: IFC (2009) as contained in Abe et al. (2012).

Figure 1.3: Interest rates and non-performing loans in developing and developed countries



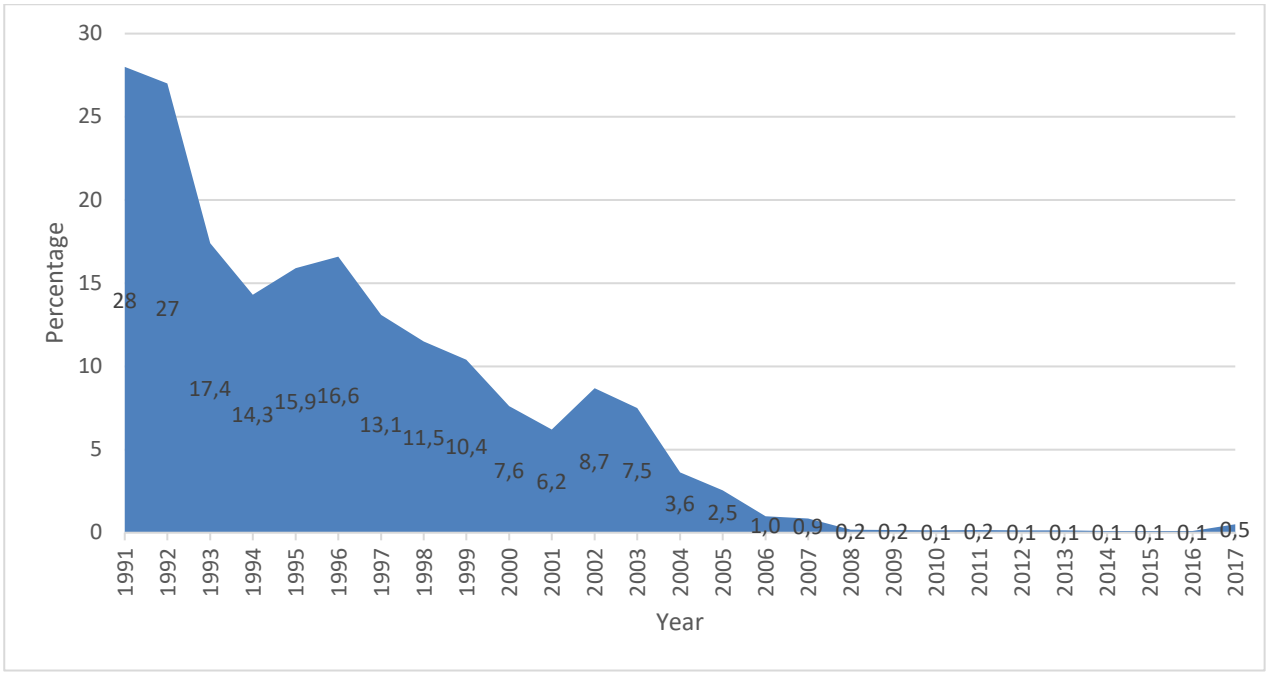
Source: IFC (2009) as contained in Abe et al. (2012).

Third, according to NBS & SMEDAN (2013), 99% of the enterprises[1] in Nigeria are MSMEs. Also, the data obtained from the Central Bank of Nigeria (CBN, 2018) Statistical Bulletin shows that the percentage of credit to MSMEs has continued to decline. In 1991, 28% of commercial bank credits financed MSMEs and this dropped to 0.1% by 2010, and remain that way until it rose marginally in 2017 to 0.5%. The credit facility to small businesses in 1991 was high because of the presence of directives by the Central Bank of Nigeria which mandated commercial banks to channel a specified percentage of credit facilities to sectors classified as “preferred”. In 1979/1980 fiscal year, Central Bank of Nigeria mandated that at least 10% of credit facility from commercial banks and merchant banks should be allocated to small businesses. This was further increased to 16% and 20% in April, 1980 and 1990 respectively. But, with the implementation of financial sector deregulation in 1996,

[1]An enterprise is another name for a business or company. It describes the actions of someone who shows some initiative by taking a risk of setting up, investing in, and running a business.

these directives were jettisoned (Mordi, Anyanwu, Adebusuyi, Odey, Amoo, Mbutor, Adebayo, Akpan, Igue, Derek, Belonwu & Zimboh, 2014) and commercial bank loans to MSMEs plummeted. A situation where 99% of the enterprises in the country have less than 1% of the commercial banks credit facility calls for investigation. Banks remain the largest source of debt finance to MSMEs in most economies (Badulescu, 2011). Many factors including business cycles, information asymmetries, guarantee system, historical and cultural factors etc., have been identified as constraints to commercial bank lending to SMEs in developing countries (OECD, 2006). This study however focuses on the credit supply perspective and identifies transaction costs and collateral requirements as special policy considerations. From the creditor's point of view, lending carries a variety of costs associated with evaluation, oversight and collections. Where a firm has no collateral to offer, the financial institution has less incentive to extend credit. It also has less incentive where the value of the collateral cannot be established. This is why this study will analyse the impact of transaction costs and collateral in the credit market for MSMEs in Nigeria, focusing on commercial banks and microfinance institutions. This thesis is actually lending credence to the issue of financial constraint to the small businesses performance, focusing on the transaction costs and collateral in the Nigerian economy.

Figure 1.4: Commercial bank loans to MSMEs as a percentage of total private credit



Source: Computed from CBN Statistical Bulletin (2016)

1.1 PROBLEM STATEMENT

The Nigerian government recognises MSME sector as a key performance to Nigeria's growth and poverty alleviation (SMEDAN & NBS, 2013). This has made the Nigerian government to anchor its

economic recovery and growth policy on MSME sector (Deliotte Nigeria, 2018). This belief is premised on the acknowledge importance of MSME sector to job creation ability and its high productivity growth contribution (Akingunola, 2011). However, this sector is bedevilled by many problems of which finance is major (Ogujiuba, Ohuche & Adenuga, 2004). In addressing this problem of finance, the government of Nigeria (directly and indirectly using policy initiative) has tried and continue trying to make fund available through various channels (which this thesis will expand) but this problem of finance persists. This has brought to the fore that fund availability does not directly translate to accessibility. Some of the factors mitigating MSME access to finance has been identified to be high transaction costs and non-availability of required collateral (Isern et al., 2009, Kihimbo, Ayako & Omoka, 2012). This is why this thesis would be looking at the implications of transaction costs and collateral on access to finance for MSMEs.

The literature also explains that 50% or more of these MSMEs do not survive beyond five years of establishment (Smallbone, 1998). Haltiwanger, Jarmin, & Miranda, (2013) posited that the prowess of small firms' job creation lies in the start-up and young businesses. Critically analysing these last two statements implies that some of the employment generated and output created by these MSMEs are unsustainable because of the higher failure rates associated with the young small enterprises. If this is the case, then there is a need to ascertain if MSMEs are actually fulfilling the role acclaimed by the literature, especially in the Nigerian economy.

Transaction cost and collateral are the drivers of access to finance by firms of different sizes. Transaction costs such as credit assessment, processing, servicing and monitoring are usually above average for MSMEs because of the small size of their loans. Another factor is the credit risk: MSMEs are perceived to be more prone to default on loan repayments and less likely to have appropriate collateral. These issues are reinforced by the high level of information asymmetries concerning the financial operations of MSMEs. Lack of a proper residential address system, weak institutional capacity for property registration and contract enforcement are curtailing commercial banks from extending credit facility to MSMEs.

Hanedar, Broccardo, & Bazzana (2014) using the World Bank enterprise survey data, investigated the role of collateral at both the firm- and country-specific levels for Eastern Europe and Central Asia countries, by analysing its presence and the degree of collateralisation, employing the collateral-to-loan value ratio. They found that country-specific variables are more important than firm-specific variables in determining both the presence and degree of collateralisation for a loan. They also found that not all firm characteristics explain collateral requirements. The collateral requirement was seen as a tool for resolving the problem of asymmetric information with respect to the firm. With regard to collateral, the adverse selection hypothesis predicts that unobservable lower risk (higher quality) borrowers will pledge more and better collateral than higher risk (lower quality) borrowers because

lower risk borrowers have a lower likelihood of losing the collateral and pledging the collateral is less costly. However, conventional wisdom suggests that when risk is observable, the higher collateral requirement is more often associated with higher risk borrowers. In a hidden action scenario, collateral may help prevent riskier borrowers from taking ex-post unobservable risk shifting behaviour that adversely affects the project payoff (Boot, Thakor & Udell, 1991). Given these challenges, this study seeks to investigate the impact of transactional cost and collateral requirements in accessing credit by MSMEs in order to identify the MSMEs' constraint to credit facilities. The focus on Nigeria was due to the fact that the percentage of credit to the private sector for MSMEs continue to fall. It stood at below 1% by the end of 2017, and MSMEs constitute 99% of all enterprises in Nigeria (NBS & SMEDAN, 2013). In particular, we ask: What is the impact of transaction costs and collateral in accessing finance for MSMEs? What are the other alternatives to MSMEs' collateral lending?

Unfortunately, the current empirical literature does not provide much insight into transaction costs and collateral lending to MSMEs specifically in the context of Nigeria. Thus, this study fulfils an urgent need in the literature by examining transactional costs and collateral as binding constraints on MSMEs' access to appropriate and timely bank credit.

1.2 RESEARCH QUESTIONS

In pursuance of the research focus above, we would be looking at MSMEs in a broader perspective, by seeking answers to the following questions:

i. What are the sources of financing for MSMEs in Nigeria?
ii. What is MSMEs' share in employment generation?
iii. What is the contribution of MSMEs in output creation?
iv. What are the impacts of the transaction costs in MSMEs access to finance?
v. What are the impacts of collateral in MSMEs' access to finance?

The first research question is to actually look at all alternative sources of finance available for MSMEs in Nigeria, while the second and third research questions are looking at the performance of MSMEs in the Nigerian economy. The fourth and fifth research questions focus on the impact of transaction costs and collateral on MSMEs access to finance.

1.3 OBJECTIVE OF THE STUDY

The general objective of this study is to investigate the implication of high transaction costs and collateral values on MSMEs' access to finance in Nigeria. In the course of doing that, this study also ascertains the performance of MSMEs in the Nigeria economy in terms of employment generation and output creation, as well as discussing all sources of finance for MSMEs. Specifically, this work will:

i. Investigate the external sources of MSMEs financing in Nigeria;

ii. Evaluate MSMEs' share in employment generation;
iii. Determine MSMEs' effectiveness in contributing to output creation;
iv. Investigate the impacts of the transaction costs in MSMEs access to finance; and
v. Determine the impacts of collateral in MSMEs' access to finance.

1.4 SIGNIFICANCE OF THE STUDY

This study revolves around access to finance by MSMEs in Nigeria, by investigating the impacts of transaction costs and collateral on access to finance for MSMEs, and how access it affects MSMEs performance in term of employment generation and output creation. From the literature, it is observed that only a study by Olomola (1999) examined the determinant of transaction costs of credit in Nigeria, and this was for non-bank institutions, and the focus is only on Agricultural sub-sector of the economy. The financial situation in the country has changed since this study and there is the need for a new empirical investigation into the impact of transaction costs in the credit market. This study is looking at the impact of transaction cost and on MSMEs. It also takes into consideration all sectors of the economy for MSMEs and not just the agricultural sector which was Olomola's main focus. This study will also examine the impacts of collateral on MSMEs access to credit, and alternatives to collateral, an area on which work is just evolving.

It is hoped that this study will make a contribution to current understanding of the issues of development financing in Nigeria, especially given recent policy discussions at both international and regional forums on how to lynchpin MSMEs to bootstrap poverty reduction and employment creation in Africa. The potential exists for MSMEs to enhance competition and to create new technologies, but only if the environment in which they operate would nurture such development, with access to finance playing a major role.

1.5 RESEARCH METHODS

In line with the stated objectives, this research adopts and applies analytical approaches and empirical models to investigate MSMEs employment generation and output contribution using World Bank enterprise survey data, employing the locally-weighted scatterplot smoothing (LOWESS) method proposed by Cleveland (1979) and modified by Neumark, Zhang, & Wall, (2008) for the analysis. Survey method was used to obtained data for the transaction costs and collateral study, employing survey and ordinary least square method for the analysis. On the side of MSMEs, the study seeks to measure and analyse both the explicit and implicit costs of applying and obtaining credit. Similarly, the study will also measure and analyse the administrative costs of granting credit by the commercial and microfinance banks, and the impact of the value and ratio of collateral, as well as the type of collateral acceptable by the financial institutions.

The research instrument for the gathering of the primary data will be a closed- and open-ended questionnaire for the cross-sectional survey, interview and case study. The first set (addressing

transaction costs, collateral determination and credit reporting problems and challenges) will be designed for financial institutions and the second set (addressing transaction costs, and perceptions and problems with collateral, as well as the determinants of collateral) for MSME operators. The borrowers' questionnaire will focus on: the nature of enterprise, age of enterprise, profitability of enterprise, capital structure, formalization (if the enterprise is registered with the government agency), level of education of the owner, all sources of funding, difficulties in external sources of funding, preferred external sources of funding, if ever applied for funding from commercial banks, if the loan was approved, the transaction cost, collateral-loan ratio demanded, if the total loan requested was approved, if the enterprise will want to continue to obtain funding from the bank, if the approved funding from the bank was timely, if the enterprise was satisfied with the payback period, at what stage of the enterprise was loan sourced for, if the loan application was rejected what was the reason, what can be done to ease the access to finance for MSMEs and other socio-cultural factors affecting access to finance in Nigeria.

Lagos state is selected as the area of focus because it is one of the major commercial cities and also the financial hub of the country. According to NBS & SMEDAN (2013), 8.7% MSMEs in the country are located in Lagos state. Almost all the commercial banks in Nigeria have their head offices in Lagos (20 out of 22). This is so because Lagos state used to be the country's capital before the capital was moved to Abuja and it also harbours the largest seaport and airport of the country.

1.6 STRUCTURE OF THE THESIS

This study is divided into seven chapters, with Chapter one being introductory. Chapter Two is the literature review and MSMEs financing options in Nigeria. Chapter Three addresses the importance of MSMEs in employment generation and Chapter Four focuses on the output contribution of MSMEs in Nigeria. Chapter Five looks at the impact of transaction and administrative costs on MSMEs' access to finance, while Chapter Six focuses on the impact of collateral on MSMEs' access to finance. Chapter Seven is the summary, conclusion, and policy recommendation for the whole thesis.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The role of MSMEs in the economic growth of a developing country is very important, and one of the key factors that would enable them to continue performing this function is access to timely and adequate credit. Literature has identified that access to finance reduces financing constraints for small businesses (Beck & Demirguc-Kunt, 2005; Beck, Demirguc-Kunt, Laeven & Maksimovic, 2006; Beck, Demirguc-Kunt, Laeven & Levine, 2008), promotes more start-ups, enables existing small businesses to exploit growth and investment opportunities (Klapper, Laeven & Rajan, 2006), and allows the choice of more efficient asset portfolios and innovation (Maksimovic, Ayyagari & Demirgüç-Kunt, 2007).

Lack of access to timely, adequate and usable financing is mostly cited in the literature as a constraint to small businesses growth and development (Biggs, 2002; Berger & Udell, 1998). Bank lending to MSMEs is not without challenges. High transaction and administrative costs stemming from problems of asymmetric information and high-risk perception, and lack of collateral remain major constraints of MSMEs' access to appropriate external financing. This chapter reviews the theoretical, conceptual and empirical literature with the aim of identifying the research gaps in the existing body of knowledge. It also discusses in detail, financing options available to small businesses in Nigeria.

2.1 THEORETICAL LITERATURE REVIEW

2.1.1 Theory of financial intermediation

This theory illustrates how imperfect information between buyers and sellers can cause the market to malfunction. If there is imperfect information, the market price will reflect buyers' perception of the average quality of the product being offered for sale, and sellers with a product of a lower quality will cash in on the sellers with a high-quality product. This is because the willing buyers on average want to offer the same price. As a result, the sellers of a very high-quality product will stay away from the market, which will lower the average quality of the product and force the price down. This will result in a spiral effect of sellers with high quality products staying away from the market, further lowering the selling price. If this process continues, it might force the market to close.

In the financial markets, information asymmetry arises between borrowers and lenders. Since borrowers know more about their investment projects more than the lenders, it becomes difficult to use interest rates to filter the application, because higher interest rates, which are usually use by banks to prevent the risk of defaulting in loans, may possibly filter good investments away, and the bad investors will be ready to obtain a loan at the high interest rate. Collateral, which is supposed to

guarantee the loan, might fail to do so. If the legal system and the property rights policy in the country are not reliable, this may push lenders away. If the value of collateral being demanded by the lender is high, it might filter out the good investments. Financial intermediaries thus exist because there is information asymmetry and transaction costs that arise from imperfect information between borrowers and lenders. For a market to work efficiently, it requires some mechanisms to overcome the imperfect information problem.

Jaffee and Russell (1976) developed a theoretical model in which imperfect information and uncertainty can lead to rationing in loan markets, in which some borrowers do not receive loans if the borrower's collateral is too small for the loan incentive.

Stiglitz and Weiss's (1981) model of credit rationing says that some borrowers receive loans and others do not. They argue that high levels of interest rates directly affect the quality of loans because of adverse selection and/or moral hazard effect. That is, if the interest rate is too high, this might affect borrowers' attitude, which might affect the loan recovery.

Claus and Grimes (2003) said that high interest rate charged by commercial banks can affect the riskiness of a loan either by sorting prospective borrowers (the adverse selection effect) or by affecting the actions of borrowers (the moral hazard effect). When the price (interest rate) affects the transaction, it may not clear the market. The adverse selection effect of interest rates is a consequence of having different probabilities of loan repayment. The interest rates an individual is willing to pay may act as a screening device. Those who are willing to pay high interest rates, on average, maybe worse risks. They are willing to borrow at high interest rates because they are bad risk taker or perceive to have no alternative. As a result, there exists an interest rate that maximises the expected return to the bank, beyond which the bank will be unwilling to supply funds, making the supply-of-loans curve to be backward sloping. This makes banks ration credit rather than raising interest rates when there is excess demand for loanable funds.

The situation in Nigeria is that commercial bank credits to MSMEs are less than one percent of the loan portfolio. This we believe is hurting the MSME sector in Nigeria and there is the need for action to rectify this misfit. It is on this premise that this thesis looked at the impact of transaction costs and collateral on MSMEs access to credit in Nigeria.

2.1.2 The theory of demand and supply of loan

Demand can be defined as the quantity of a product that consumers are willing and ready to purchase at each of a series of prices and during a specific time, while supply is the quantity of a

product that the producers are willing and able to make available for sale at each of a series of prices during a specific period.

The fundamental characteristics of demand and supply are that, all else being equal, the higher the price the lower the quantity demanded and vice versa, and the higher the price the higher the quantity supplied and vice versa. This shows that for a normal product, all things being equal, demand has a negative relationship with price, while supply has a positive relationship with price.

Therefore, for equilibrium or market clearance to take place, both prices of a product and the quantity bought and sold must be equal. The equilibrium price and quantity in the market are values for price and quantity in the market which, when achieved, tend to perpetuate themselves until there is a shift in either supply or demand determinant factors.

It is the loan market theory that this research work will anchor on, in determining transaction and administrative costs, bearing in mind that these costs are capable of preventing the credit market from operating efficiently and can actually prevent the market from taking place altogether. The market only takes place if the supplier can sell at a price that is expected to cover all the costs of their production, both direct costs and opportunity costs (Benston & Smith, 1976).

2.1.3 Coasian theory of the firm

This theory was developed by a British economist, Roald Coase in 1932 and published in 1937. The question raised by Coase (1937) was “why are some activities directed by market forces and some other by firms?”. Coase explained that the reason why it is profitable for firms to exist is that there is a cost in using the price mechanism and that firms exist to reduce this cost, which is referred to as transaction costs but not to eliminate it. This is true for credit market if one can imagine what the transaction costs would look like, in the absent of financial institutions. In this regards, financial institutions are a response to the high cost of using market mechanism both to the supplier and user of credit facility. It is often cheaper to direct tasks by fiat, than negotiating and enforcing separate contracts for every transaction. Coase (1937) also admit that transaction costs are rarely low. However, we have to continue looking for means through which we can drive down the transaction costs, if we really want to help small businesses to grow. This is part of what this thesis is set to achieved by throwing more light at the implications of transaction costs on MSMEs access to financing.

Transaction costs is the cost incur in the process of carrying out an exchange in the open market as a result of division of labour (Rotke & Gentgen, 2008). Transaction costs can also be viewed as the economic costs that organisations borne both outside and inside the firm, and a means through which the efficiency of a firm can be measured (Polski & Kearney, 2001). Transaction costs in the credit market implies that financial institutions must become efficient in monitoring activities and

strategic behaviour of borrowers to continue in business (Williamson, 1985). Lower loan sizes are associated with higher average cost because most of the components of transaction costs are fixed, which makes the financial institutions that target the poorest borrowers to struggle with financial viability (Natamba, Peter, Zulaika, Akankunda & Esther, 2013).

2.2 Empirical literature review

Ekwem (2011), using the questionnaire survey method, found that in Nigeria, the major constraints of MSMEs include inadequate managerial expertise, poor infrastructural facilities, inconsistencies in government policies, lack of financial records, multiple taxes and levies among others. The author opined that lack of finance is a function of multiple problems and that the major sources of credit for financing MSMEs in Nigeria are personal savings, family/friend support, and commercial banks.

In the survey conducted by SMEDAN and NBS in 2010, the major problem confronting the development of enterprise in Nigeria, ranked by respondents in order of severity, is the lack of access to finance, while weak infrastructure and inconsistency in government policy also rank high.

ESCAP (2009) found that in MSMEs attempt to gain access to financial services, they continue to face constraints caused by many factors such as inefficient financial sector, high interest rates, lack of information on capital availability, excessive red tape on the part of the financial institutions, lack of collateral, poor property right laws, lack of proper financial products, missing credit rating agencies, and poor human resources in the financial sector.

Mahembe (2011) found that only formal/registered SMEs in South Africa have access to banks, capital markets or other suppliers of finance. Informal MSMEs are excluded from the formal financial market and they constitute more than 50% of the MSMEs in South Africa. The author found that 84.4% registered MSMEs apply for a loan with an application success rate of only 33.2%, and only 27.3% of the successful applications actually received funds. The actual figures were 873,080 MSMEs that applied for loans, and 93,759 that received loans, leaving 779,321 with a financing gap. However, in identifying the most significant obstacles to MSMEs' growth, access to finance ranked third while space to operate ranked first.

Park et al. (2008) opined that commercial banks remain the most important source of external finance for MSMEs, and there are disadvantages in their lending policies to MSMEs in developing countries. IFC (2009) in their survey of OECD and non-OECD countries found that commercial banks in developing countries require more collateral for loans than those in developed countries, regardless of firm size. The survey also revealed that the interest rate for loans in developing countries almost doubled that of developed countries and the non-performing loan was higher in developed countries for small businesses than in developing countries.

Abe et al. (2012) submitted that:

1. Policymakers need to reduce the entry barriers for new businesses as this will reduce the starting cost.
2. Cash flow is very important to MSMEs. Small businesses fail more because of lack of cash flow than lack of profit.
3. Entrepreneurship should be strengthened through training and education.
4. Networking and information dissemination should be strengthened which will further strengthen the use of technology and business development as well as collaboration among firms.

Zambaldi et al. (2009) used a sample of 65,535 MSMEs' application proposals for credit in a large Brazilian bank between January 2004 and September 2006 to analyse credit-granting decisions of the bank. They found that small firms face credit rationing and that low-risk credit contracts with liquid collateral are the primary source of credit for MSMEs, mainly because of cost, collateral-dependency, and constraints due to asymmetric information.

Rauch and Hendrickson (2004) opined that banks willing to supply large amounts of credit to MSMEs may rely on the automation of lending processes as a way of reducing costs, utilising credit scoring and contractual terms of collateralisation and securitisation lending techniques. Loan securitisation involves pooling together a group of loans and using their cash flows to back securities for which the loans serve as collateral.

Hartarska and Gonzalez-Vega (2006) found an inverse relationship between adverse selection and moral hazard with the age and size of firms, which is one of the reasons why MSMEs find it difficult to access credit. This is attested by Baas and Schrooten (2006), who found that information about MSMEs is rare and costly for financial intermediaries, and their rate of default is high. Mahembe (2011) also opined that banks are not set up to cope with small loans.

Sharma and Gounder (2011) examined the reasons for financing constraints of MSMEs in Fiji with a focus on bank credit. The researchers found that the MSMEs are fund-constrained by banks' interest rates, fees and charges, and collateral.

So also, Ogujiuba, Ohuche, & Adenuga, (2004), using survey method, evaluated the causes of the risk-averse behaviour of banks in funding MSMEs in Nigeria. The researchers looked at the monetary policy and financial stability implications of MSMEs "credit crunch" by looking at the capital base of the institutions in the sector vis-à-vis the effectiveness of the Bankers' Committee' SMIEIS initiative. The work adopted a conceptual analytical framework that employed theoretical and statistical comparative cross-sectional data to analyse the SMIEIS programme vis-à-vis the capital base of banks to ascertain whether it offers an effective means of solving the problem of funding MSMEs in Nigeria and the attendant implications for financial stability in the system. The analysis

confirmed that government should urgently address the problem of financial intermediaries and stability in the system as a national priority and build institutions that will drive the reform process.

Olomola (1999) looked at determinants of smallholders' transaction cost of procuring non-bank loans in Nigeria, and found that loan disbursement lag is a significant determinant of borrowing transaction cost. He opined that any action aimed at reducing the transaction cost of borrowing by small-scale farmers will need to focus on the administrative aspect of credit production.

Masuko and Marufu (2003) investigated the determinants of transactions cost and access to credit by MSMEs and the poor in Zimbabwe. They found that transactions cost constrains the access to credit by MSMEs and the poor, and that transactions cost can be minimised if the policy proposal targets the sources of such costs.

Fachini et al. (2008) investigated transaction costs of lenders and borrowers in a Brazilian microcredit organisation and opined that to save these costs, lenders should adopt a solidarity group lending system in the rural area. He also opined that in a situation where banks use individual loans, borrowers who introduce new clients should be given discounts so as to reduce credit agents' work and build a better lender-borrower relationship that will ultimately reduce transaction costs.

Bing Xu (2018) discovered that increasing the types of moveable assets as collateral in China through the property law reform as ease accessibility of credit in the economy.

Feder, Tongroj, & Tejaswi, (1988) analysed the use of collateral, particularly land collateral, in institutional and non-institutional lending markets in developing rural markets. They found that in rural financial markets in developing countries, some concern might arise with regard to the effectiveness of the use of collateral. They opined that political, legal and social issues influenced the enforcement of land pledged as collateral and affected the lending transaction.

Jimenez and Saurina (2004) analysed the determinants of the probability of default of bank loans, using collateral, type of lender and bank-borrower relationship on information for more than 3 million loans entered into by Spanish credit institutions between 1988 and 2000. They found that collateralised loans have a higher probability of default, that loans granted by savings banks are riskier, and that a close bank-borrower relationship increases the willingness to take more risk.

Menkhoff, Neuberger, & Suwanaporn, (2006) examined the role and determinants of collateral in emerging markets compared to developed markets. Using a dataset of 560 credit files of Thai commercial banks, they found that both the incidence and degree of collateralisation are higher in Thailand than in developed markets.

Jimenez, Salas, & Saurina, (2006) estimated a comprehensive model of the determinants of collateral in loans extended to business firms. Using panel data on a sample of bank loans to Spanish firms from 1984 to 2002, they found a negative relationship between collateral and borrower's risk.

The study also presented evidence on credit market competition, lender type, and business cycle as a determinant of collateral.

Jimenez, Salas, & Saurina, (2009) examined the effect of organisational distance on the use of collateral for business loans by Spanish banks on the basis of the recent lender-based theory of collateral. The study found that, for the average borrower, the use of collateral is higher for loans granted by local lenders than by distant ones. The study also shows that the difference in the likelihood of collateral in loans granted by local lenders relative to distant lenders is higher among older and larger firms, than, respectively, younger and smaller firms.

Berger, Frame, & Ioannidou, (2011) offered a possible explanation for the conflicting empirical results in the literature concerning the relationship between loan risk and collateral. The study found that the dominant reason collateral is pledged is that banks require collateral from observably riskier borrowers (lender selection effect), while lower risk premiums arise because secured loans carry lower losses given default (loss mitigation effect). The study also found that the risk-collateral channels depend on the economic characteristics and types of collateral. The lender selection effect is more important for outside collateral than the risk shifting or loss mitigation effects for liquid collateral, and the borrower selection effect for non-divertible collateral.

Fanta, (2016) found that relationship lending only complement collateral and not a substitute, in a survey of 102 Ethiopia manufacturing firms, using binary logistic regression.

From the empirical studies reviewed, it is obvious that finance has been identified as a major hindrance to the growth of small businesses in developing countries and specifically in Nigeria. However, not much work has been done in identifying the impact of transaction costs and collateral on MSMEs. It is in this light, that this work investigates transaction costs and collateral impact on MSMEs' access to credit in a developing country with a relatively developing financial market. This study will therefore look at how transaction and administrative costs affect MSMEs' access to credit in the Nigerian economy, and the impact of collateral on access to credit for MSMEs with the aim of establishing an alternative to collateral.

2.3 FINANCING OPTIONS FOR MSMEs IN NIGERIA

In this section, we would be exploring the financing options available for small businesses, with the view of having a holistic approach to the issue of accessing finance for MSMEs. The essence of this section is to explain all other sources of financing options available in Nigeria, outside commercial banks, to see how the problem of access to finance for MSMEs can be reduced.

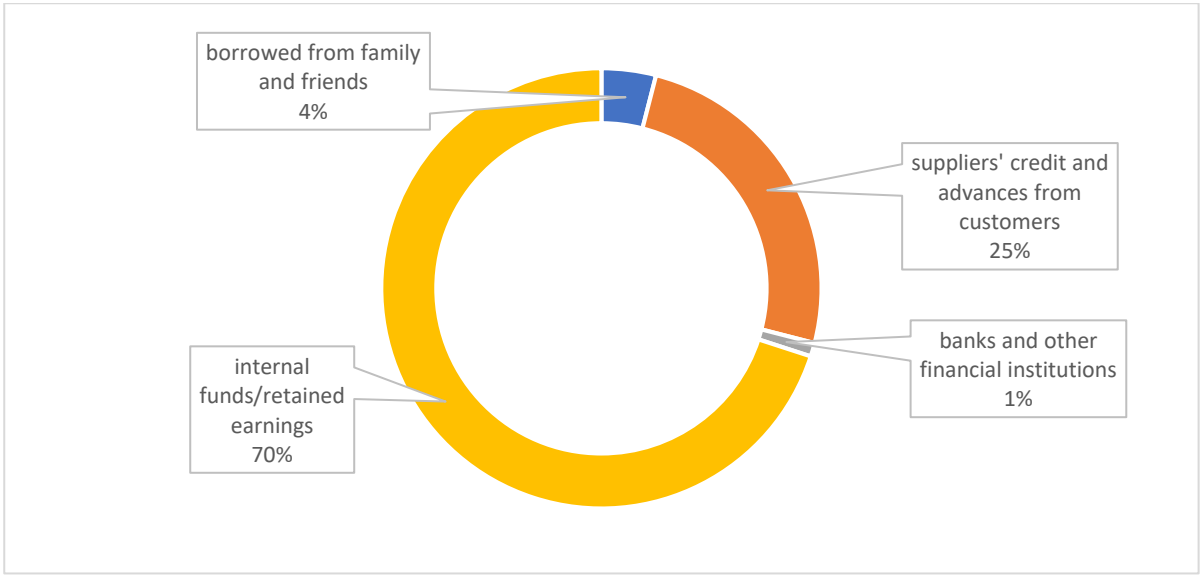
The rate at which small businesses spring up in Nigeria is greatly encouraging but the problem is the sustainability of these businesses. According to the national baseline survey by SMEDAN & NBS (2013), the number of small business enterprises in Nigeria for 2010 stood at slightly above 17 million

and employed a total workforce of about 32.5 million. This rose to over 37 million enterprises by 2013 with a workforce of almost 60 million within a space of three years, although this could also signify worsened economic conditions due to the after-effect of the 2008 financial crisis and the fall in world commodity prices. However, for these small businesses to be sustainable, access to finance is critical. This section addresses the financing options available for MSMEs in Nigeria.

There is much in the literature regarding the financing options available for MSMEs within Nigeria (Aruwa & Suleiman, 2004; Isern et al., 2009; Akingunola, 2011; Evbuomwan, Ikpi, Okoruwa, & Akinyosoye, 2012; Gbandi & Amissah, 2014; Taiwo, Falohun, & Agwu, 2016; Osmond & Paul, 2016; Chijioke, 2016). However, this study will be looking at the financing options available for MSMEs from an angle different from the existing studies to bring out some salient facts that are not present in other studies. This study will be looking at (i) financing options available to small businesses in Nigeria, (ii) the role of lending vis-à-vis stock markets especially for MSMEs, (iii) the role and growth of Micro Finance Banks (MFBs) in Nigeria and lending to MSMEs to see if MFBs can mitigate costs of lending to MSMEs, and (iv) the major obstacles to bank lending to MSMEs.

MSMEs in Nigeria have little access to external finance (Iarossi, Mousley, & Radwan, 2008) and this is hampering their emergence and eventual growth (Gbandi & Amissah, 2014; Taiwo et al., 2016). The main source of capital for MSMEs in Nigeria still remains the owners' savings and retained earnings which, according to a survey in Nigeria by World Bank Investment Climate Assessment (ICA, 2008), at 70%, followed by suppliers' credit and advances from customers (25%), 4% from family and friends, and the smallest share being credit from the banks and other financial institutions (1%).

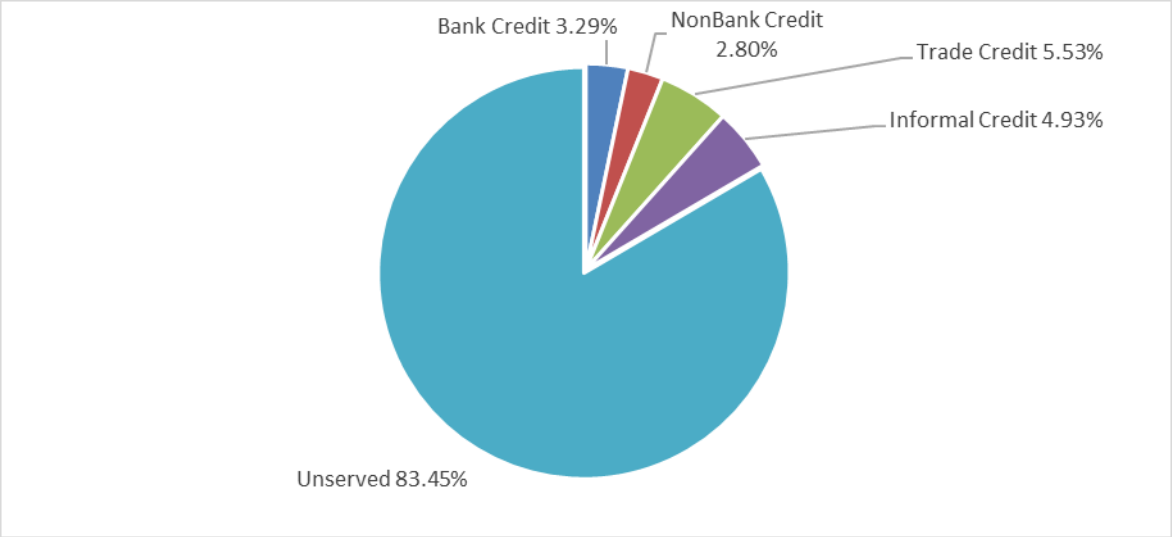
Figure 2.1: Sources of finance for MSMEs



Source: Computed from ICA Survey Data, 2008

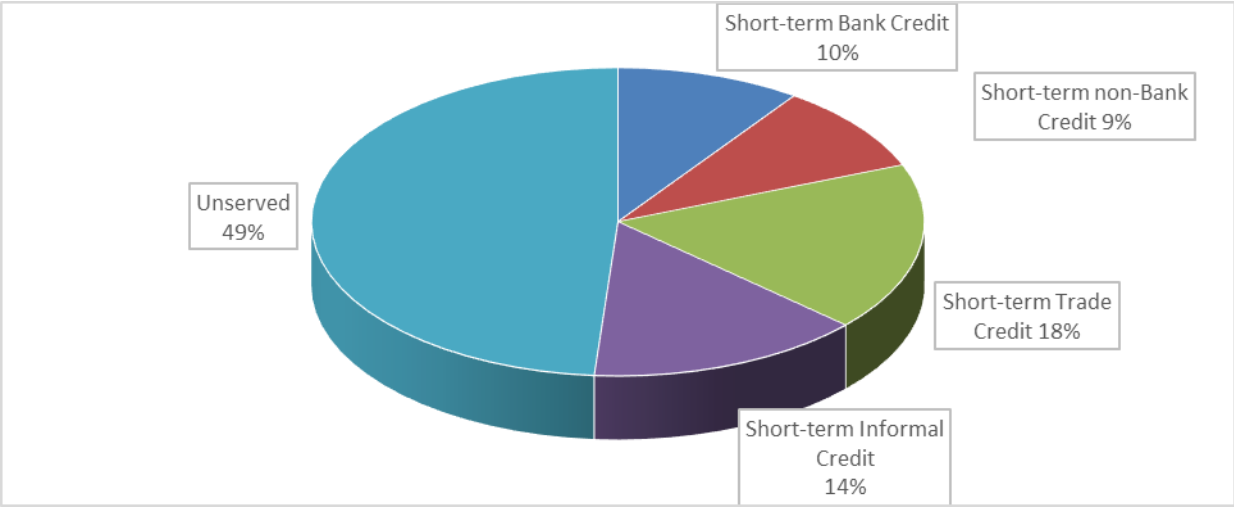
This has not changed much as suggested by the 2014 World Enterprise Survey data on Nigeria, which shows that only 16% of the firms surveyed had any form of credit to buy fixed assets and only 51% of firms surveyed had any form of credit for working capital, of which 6% and 19% respectively were from financial institutions (bank and non-bank financial institutions).

Figure 2.2: Firms with debt finance assets



Source: Computed from World Enterprise Survey Data (2014)

Figure 2.3: Firms with credit for working capital



Source: Computed from World Enterprise Survey Data (2014)

There is an extensive literature on the firm debt (Bea, Kim & Kwon, 2017; De Mooij & Keen, 2016) and equity financing options (Coleman, Cotei & Farhat, 2016; Mande, Park & Son, 2012), as well as both the supply and demand side of financing: the supply side looks at factors that determine the

extension of capital or credit, and the demand side looks at financing options. Firms across countries have different financing options, determined by both firm-specific characteristics and countries' institutional environments such as the legal system and the financial system. It is therefore necessary to look at the financing options available for MSMEs in Nigeria.

Basically, financing can be grouped into two: equity and debt financing. Equity finance is the process of raising capital through the sale of shares in an enterprise, and refers to the sale of an ownership interest to raise funds for business purposes. Debt financing is a loan which must be paid back together with the agreed interest and within a prescribed timeframe. Both forms of financing are needed at various stages of growth of an enterprise.

2.3.1 Equity financing options

To address the issue of credit constraint, a number of MSME financing schemes were rolled out by the Central Bank of Nigeria (CBN), to complement the existing sources of finance.

2.3.1.1 Small and Medium Enterprises Equity Investment Scheme (SMEEIS)

This scheme was set up in 2002 by CBN and the Bankers' Committee. It entails commercial banks setting aside 10% of their profit before tax annually to finance equity investment in MSMEs (venture capital). The scheme (as at the end of 2009 when it was modified), attracted a total of 42.03 billion Naira with just 28.87 billion Naira (about 69%) equity investment in 336 projects, of which the greater percentage of the venture capital, were converted from bad debts that the enterprises owed the commercial banks. The scheme became optional by 2009 and commercial banks are no longer mandated to set aside 10% of their profits. With this development, it becomes difficult to assess the credibility of the program. It looks as though the commercial banks simply abandoned the scheme.

2.3.1.2 Compulsory Pension Scheme Reform Act of 2014

This act also provided a source of finance for MSMEs. The act stipulated that 5% of the pension assets can be invested in private equity and venture capital. By the end of December 2017, the pension asset fund was 7.52 trillion Naira and this means that more than 370 billion Naira (i.e. 5% of 7.52 trillion) should be available for investment in private equity and venture capital. However, the data shows that only 25 billion Naira was invested in equity funds which is just 0.30% as against 5% prescribed by law (PenCom monthly report, 2017).

2.3.1.3 Alternative security market (ASeM)

The ASeM is a specialised board of the Nigeria Stock Exchange (NSE), which was established in April, 2013, to bring the listing of high growth potential SMEs into the fold. It gives such companies the opportunities to raise long-term capital from the capital market at a relatively low cost. There is no limit to the amount of capital a company can raise in this market, as long as the company meets the regulatory requirements of both the Corporate Affairs Commission (CAC) and the security exchange commission. However, only ten companies were listed on the ASeM platform as at May

2016. Three of the companies are in oil and gas, two are in the services sector, and one each in healthcare, trade, construction/real estate, and financial services respectively, and the last is a conglomerate which is in healthcare, agro-allied and trade (The Nigeria Stock Exchange website).

2.3.2 Other sources of equity financing

2.3.2.1 Crowdfunding

Crowdfunding consists of a small amount of funds from a large number of individuals to finance a project or an enterprise. It is more used in serving specific projects where the purpose of the suppliers of the funds is to give back to the community rather than financing an enterprise. However, if well motivated, it can elicit the same response from well-meaning individuals to offer help. Donations, rewards and pre-selling represent the most widespread forms of crowdfunding. Peer-to-peer lending can be attractive to a young entrepreneur who is just starting and has little or no collateral or credit history. Likewise, equity crowdfunding can provide a complement or substitute for seed finance for MSMEs (Freedman & Nutting, 2015). However, this method is yet to gain ground in Nigeria. Stakeholders should place increasing attention on this platform as a way to mobilise financial resources and entrepreneurial expertise towards innovative ventures for MSMEs.

2.3.2.2 Business Angels and Venture Capitalists

According to Chemmanur & Chen (2006), Business Angels and Venture Capitalists are private equities who make an investment directly into a private enterprise. The differences are: (i) business angels are individuals, using their personal money to assist an enterprise more than making a profit (this affects the magnitude of financing), while venture capitalists invest in an enterprise primarily to make a profit and would not invest in any enterprise that will not yield high returns on investment; (ii) if the enterprise is at an early stage, business angels are most likely to be the source of funding: a venture capitalist would only invest when the enterprise has proven to be a profitable venture and needs more capital for expansion. In some instances, the government gives starting capital to small businesses such as the indigent Youth Entrepreneurship Development Program. To benefit, a good business proposal is required.

2.3.3 Debt financing options

2.3.3.1 Youth Entrepreneurship Development Program

According to CBN website on development finance, this program was launched on 15th March 2016, with the aim of fixing the triple-barrelled constraints of insufficiency, high cost and inadequate term of capital usually faced by youth entrepreneurs and start-up enterprises. It offers a credit of up to 3 million Naira to a single eligible youth (graduate within five years of graduation), and up to 10 million Naira for groups (3-5 youths) at 9% interest and a loan term of up to three years. The collateral requirements are quite simple: academic certificates, third party guarantees, and other movable

assets. However, there is no available documentation of the success of this program as at the time of writing this research work.

2.3.3.2 Micro, Small and Medium Enterprises Development Fund (MSMEDF)

According to CBN MSMEDF guidelines, this fund was launched on 15th August 2013 by the CBN with a seed capital of 220 billion Naira. The funds prescribed a 50:50 ratio for on-lending to Micro enterprises and new SMEs. The scheme also has special consideration for economically active persons with disabilities by setting aside 2% of the wholesale component of the fund to this category. It also has a built-in component of reducing gender inequality by earmarking 60% of the fund to provide financial services for women. The broad objective of the scheme is to channel low interest (9% annual, inclusive of all charges) funds to the MSME sub-sector of the Nigerian economy so as to: (a) enhance MSMEs' access to financial services; (b) increase MSMEs' productivity and output; (c) increase employment and create wealth; and (d) engender inclusive growth. By October 2015, 52.33 billion Naira had been disbursed as credit.

2.3.3.3 Debt option intervention funds

In 2010 the CBN established the following debt option intervention funds to unlock credit to the MSMEs sub-sector: 200 billion Naira was made available for the SME Refinancing and Restructuring Fund (SME-RRF), and Small and Medium Enterprises Credit Guarantee Scheme (SMECGS). The SME-RRF is to fast-track the development of the SMEs manufacturing sector and improve the financial position of Deposit Money Banks (DMBs). As at June 2011, the sum of 197 billion Naira had been disbursed to 539 manufacturing SME projects. By 2015, this scheme was replaced with the Real Sector Support Facility (RSSF). The SMECGS is a credit enhancement program where the CBN provides up to 80% guarantee to DMBs on credit to MSMEs in order to encourage DMBs to lend to MSMEs. As at June 2015, 1.36 billion Naira had been guaranteed by the scheme. The overall target of these two initiatives was to increase output, generate employment, diversify the revenue base, increase foreign exchange earnings and provide inputs for the industrial sector on a sustainable basis (sourced from CBN website).

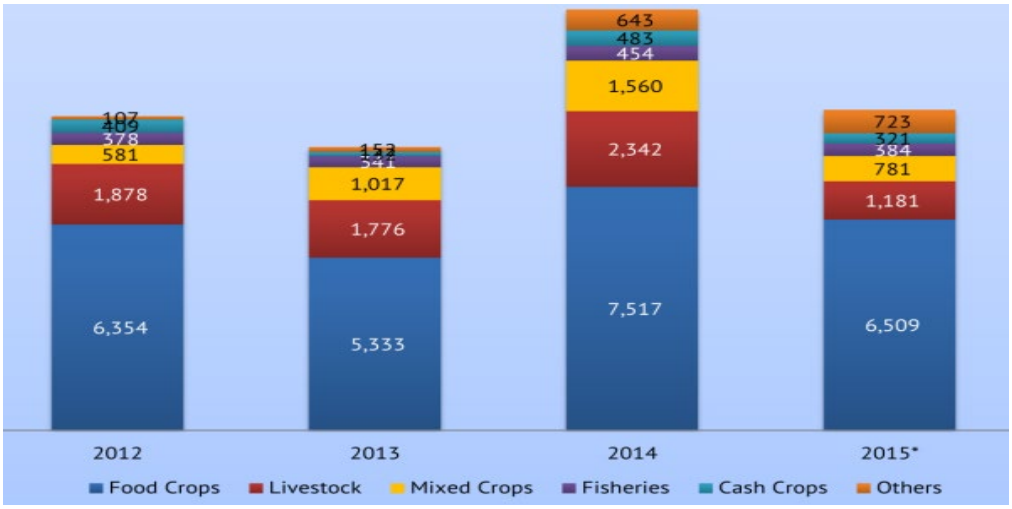
2.3.3.4 Agricultural schemes

In Nigeria, agriculture is predominantly dominated by small farm holders and can be classified exclusively under MSMEs. Interventions specifically developed for this mainstay sector of the economy by the Federal Ministry of Finance and the Central Bank are: (a) the Agricultural Credit Guarantee Scheme Fund (ACGSF), (b) Agricultural Credit Schemes, and (c) the Commercial Agricultural Credit Scheme (sourced from CBN website).

(a) The Agricultural Credit Guarantee Scheme Fund was promulgated by Decree No. 20 of 1977 and came into operation in April 1978, with the Federal Government and CBN supplying 60% and 40% of the fund respectively. The scheme was to guarantee up to 75% of Money Deposit Banks

(MDBs) credit to farmers. This financing is at market-determined interest rates. However, the CBN offers a rebate equivalent to 40% of the interest when the loan and the interest are duly paid without default (sourced from CBN website). The scheme has however suffered from bureaucratic and administrative bottlenecks. The processing of applications and claims is usually so slow that at the end of 2005, there was an accumulated backlog of 4,064 unprocessed claims (IFPRI, 2008). In order to reverse the declining trend, several innovations and products were introduced under the scheme to fast-track the application process. These included Self-Help Group Linkage Banking, for group loans, Trust Fund Mode, which is a fund used as a rotating loan, and Interest Draw Back, which encourages prompt loan repayment. By October 2015, the scheme had guaranteed loans totalling 94.37 billion Naira to 990,292 beneficiaries. The Agricultural Credit Guarantee Scheme Fund is a scheme that is widely known by farmers and is an acknowledged contributor to access to finance by the agricultural sector of MSMEs because of its long existence. The success story of the scheme is depicted in Figure 2.3.

Figure 2.3: ACGSF success story by segment (2012–2015; ₦ million)



Source: Augusto & Co. 2015

(b) The Agricultural Credit Support Scheme (ACSS) was an initiative of the Federal Government and the CBN with the active support and participation of the Bankers' Committee. The scheme has a prescribed fund of 50 billion Naira. The major objectives of the scheme were to enable farmers to exploit the untapped potential of their sector, lower the cost of agricultural production, generate a surplus for export, increase Nigeria's foreign earnings, and diversify the revenue base. Funds are disbursed to farmers and agro-allied entrepreneurs at a 14% interest rate with a cashback of 6% of the interest rate to applicants who pay back their facilities on schedule (sourced from CBN website).

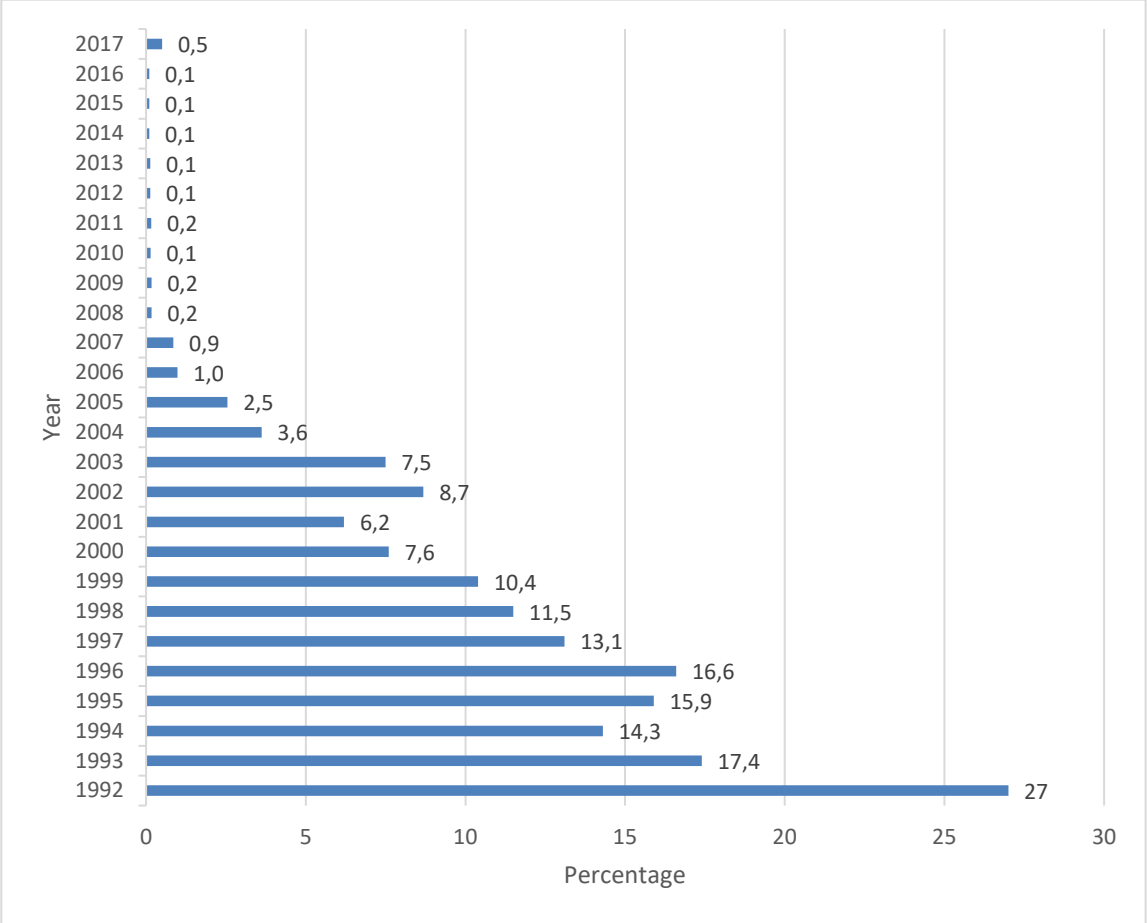
(c) Commercial Agriculture Credit Scheme (CACS) is also an initiative of both CBN and the Federal Ministry of Agriculture and Water Resources (FMA&WR) in 2009 to provide finance for the agricultural value chain in the wake of the global economic crisis. The scheme is meant to finance large integrated commercial farm projects with an asset base of at least 350 million Naira (land excluded) with a prospect of increasing it to 500 million Naira within a space of three years, and medium-sized agricultural enterprises with an asset base of 200 million Naira. The terms of borrowing are favourable, which include a long tenure and 9% interest rate per annum (sourced from CBN website).

2.3.4 Other sources of debt financing

Probably the oldest form of formal debt finance is a bank advance which can be in the form of a loan or an overdraft. In Nigeria, there are 22 registered commercial banks and five merchant banks, outside the development finance institutions[2] established by the government. According to CBN statistical bulletin (2018), the ratio of credit to MSMEs is near zero as depicted in Figure 2.4.

Figure 2.4: Commercial banks credit to MSMEs as a percentage of total private credit

[2] Development Finance Institutions in Nigeria are Bank of Industry, Bank of Agriculture, Federal Mortgage Bank of Nigeria, Nigerian Export and Import Bank, The Infrastructure Bank and The National Economic Reconstruction Fund.



Source: Computed from CBN Statistical Bulletin 2016

Trade credit is another source of debit financing for an enterprise to obtain short-term credit. It is the credit extended by the supplier who allows delivery of materials, equipment or other valuables to a trading partner with the promise of paying later, which is usually within 90 days, or more in some special cases.

Leasing is another form of debt financing, with equipment leasing as the most favoured option of all forms of leasing by MSMEs in Nigeria because it is easy to obtain and it offers tax incentives (Isern et al., 2009). According to CBN (2016) and Isern et al. (2009), equipment leasing recorded a quadrupling of leasing volumes between 2003 and 2007. This growth is significant given the fact that leasing companies are not regulated in Nigeria, including those that specialise in financial leasing. Other options for leasing are sale and leaseback and leveraged leasing.

Islamic finance offers different instruments for MSMEs. These instruments include cost–plus financing (Murabaha), profit sharing (Mudaraba), partnership (Musharaka). There is also the Musharakah, which is a form of financing where two or more people combine either their capital or labour together to share the profit in a prescribed format, enjoying similar rights and liabilities. There is also Murabahah, which is the most popular scheme. Here, the financier (often the Islamic bank)

purchases or imports certain commodities and resells them after adding an agreeable margin of profit to the entrepreneur, in an instalment payback (Dhumale & Sapcanin, 1999). One advantage of this scheme (Murabahah) is that it reduces the problem of moral hazard since the financier is not giving cash but rather giving the needed goods or machinery. And finally, there is the Mudarabah, which is a profit sharing and loss absorbing scheme rather than profit and or loss sharing contract. Mudarabah is an agreement between the capital owner and the investment manager, who owns the expertise, and profit is shared in an agreed format but the loss will be borne solely by the capital owner.

Many MSMEs are financed by International Development Agencies and Non-Governmental Organisations (NGOs) such as the World Bank, International Finance Corporation (IFC), African Development Bank (AfDB), Department for International Development (DFID) and many more. For instance, in the year 2010, IFC increased its investment to almost $400 million of equity and loan financing in three major banks in Nigeria (First Bank, First City Monument Bank and Guarantee Trust Bank), with the aim of helping the banks in Nigeria to reach the segments of the economy that needed funding.

The new hybrid range of external financing techniques include: (a) Asset based finance which is good for financing working capital needs, and leverages on receivables, inventory, machinery, equipment and real estate rather than on the firm's credit standing: this new hybrid range of external financing techniques however, goes with a sophisticated and efficient legal system and advanced financial expertise and services; (b) alternative debt (debenture) has had limited usage by the MSME sector even in developed economies (OECD, 2015). However, alternative debt (debenture) is suitable for structured finance and could benefit MSMEs in accessing capital markets to invest and seize growth opportunities. Debenture fosters the development of a corporate bond market for MSMEs. Debenture limited usage is due to lack of information on the issuers, illiquid secondary markets and the differences in insolvency laws across industry players and jurisdictions. There is also a need to create awareness and understanding among the MSMEs of all the financial opportunities available. Also important is the need to reduce the informalities in this sector and to improve the quality of business plans, investment projects and record keeping to make them comply with investment due diligence requirements.

Informal financing is another source of finance for enterprise and it thrives well in the developing world. Informal financing refers to the whole arrangement of non-market financial institutions outside the financial regulations such as professional money lenders, daily collectors, credit unions and cooperative societies among others. Informality of financial markets does not connote illegality; it only means that financial activities take place outside the purview of the financial regulators. In Nigeria, informal finance still constitutes a huge source of finance for enterprises. This includes credit

from friends, families and unregulated credit providers such as Rotating Savings and Credit Associations (ROSCAs), Accumulating Saving and Credit Associations (ASCRAs), and money lenders. Informal financial markets are indigenous systems of credit and savings in varying forms, by different sets of people, who collectively contribute specified amounts of money at specific times, and either allocate the money contributed to members on a rotational basis, or use it to provide loan facilities to members who request it and thereafter, share accrued savings or interest at the end of the financial year (Adeleke, 2014).

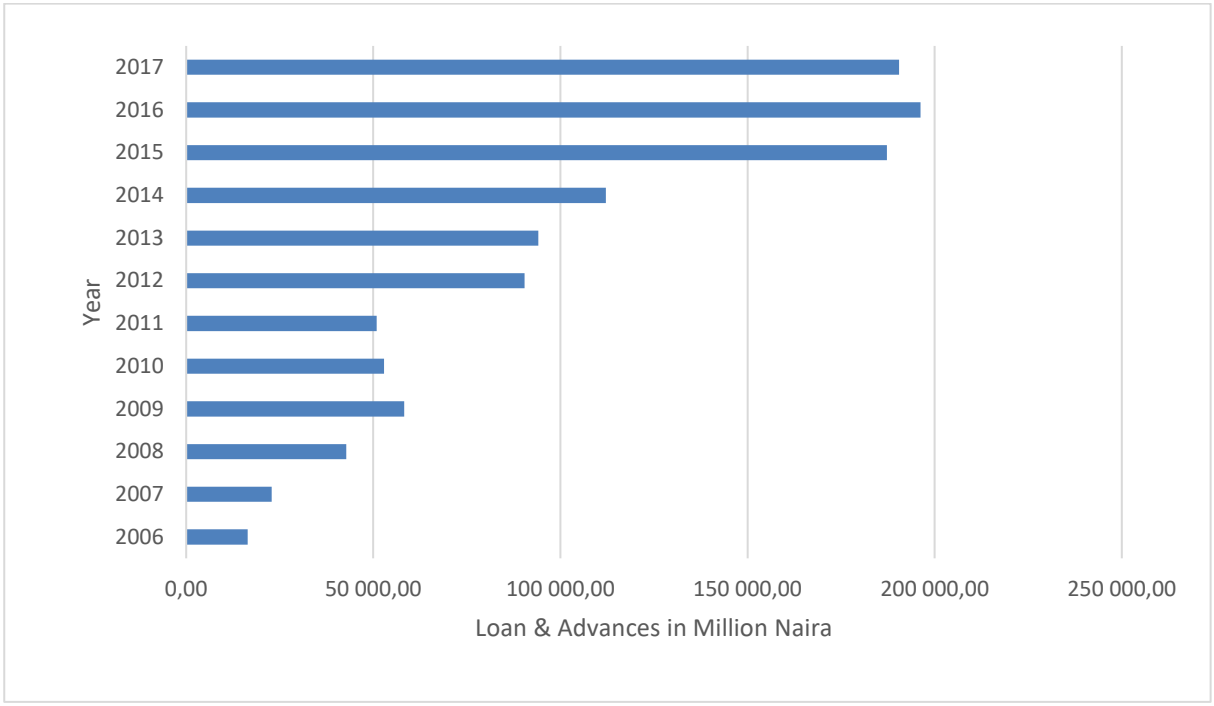
The informal financial markets are purpose-driven and respond largely to the needs of diverse customers using various geographical and or socio-economic principles. It could have domestic or cross-border functionality. The domestic aspect includes all informal savings and loans institutions that do not engage in foreign exchange transactions. The cross-border segment involves those that deal exclusively in foreign exchange transactions such as cross-border remittances, foreign students transfer of funds, and payment for goods and services abroad. One of the common factors of informal financial activity is smallness in the scale of operation. Other factors include freedom of entry and exit of institutions operating in the market, and credit allocation is majorly based on trust. Savings and credits are sometimes based on family and association, with significant peer pressure for sustaining compliance, which ensures a high proportion of loan recovery rate (Adeleke, 2014).

2.3.5 Micro Finance Institutions

Micro Finance Institutions (MFIs) were formalised in 2005. The microfinance policy converted all community banks in the country to microfinance banks, with an increase in their capital base to 2 million Naira and 1 billion Naira for unit and state finance outfits respectively (CBN, 2015). Microfinance services refer to loans, deposits, insurance, fund transfers and other auxiliary non-financial products targeted at low-income clients. Three characteristics distinguish microfinance products from other formal financial products: (i) smallness of loans and savings, (ii) less emphasis on collateral, and (iii) simplicity of operation. Micro finance institutions, even though restricted to a limited range of services, are very active in performing their role in micro and small-scale business financing. This is because while commercial banks rely heavily on financial information in granting credit, microfinance institutions rely more on non-financial information sourced through personal contact, community ties and close lender-borrower relationships. Many studies have attested to the fact that non-financial information is important in the lending decision of microfinance institutions (Otrok & Whiteman, 1998; Berger & Udell, 1995, 2002). Micro finance institutions were licensed to take advantage of the untapped potential for financial services, especially to the poor and the rural area dwellers in the country where DMBs did not reach. The Micro Finance policy was initially developed in 2005 and revised in 2011 to address financial gaps observed in the economy. The policy provided for private MFIs where the government and the CBN are expected to play an active role in monitoring, supervision, and assistance but not to participates in the field. The 2011 revised

policy provided for MFIs to be adequately capitalised, better managed, run at a low cost with an efficient structure, and to operate in a safe and sound manner. The updated record with the Central Bank of Nigeria (CBN, 2018) shows that 866 MFBs have been licensed in Nigeria. MFBs' credit to the private sector has been on the increase since the reform. In 2006, MFBs' credit to the private sector was 16.5 billion Naira, which rose to 196.2 billion Naira by the end of 2016, and slightly lower in 2017 to 190.5 billion naira as depicted in Figure 2.5. This was literally caused by more MFBs' joining the market and the increase in the capital base of the MFBs through the CBN reform.

Figure 2.5: Micro finance bank credit to the private sector



Source: Computed from CBN Statistical Bulletin 2016

2.3.5.1 Can Micro Finance Banks mitigate the costs of lending to MSMEs?

Morduch (1999) demonstrated that the demand for finance among small businesses is strong. However, lack of collateral and credit history seriously constrain access to credit. Commercial banks' lending policies are not favourably disposed to lending to small businesses: for instance, one of the prerequisites is collateral of more than 100% of the loan value, and another is audited financial and management accounts, which many small businesses do not possess. Micro entrepreneurs usually cannot produce the same amount of documentation as is required of traditional lending. This raises the issue of the financing gap that is often cited as detrimental to the growth of MSMEs. It is believed that with the advent of MFIs, some of these gaps would be filled.

From the MSMEs survey carried out, some of the micro businesses that obtained a credit facility cited MFIs as the source of the credit. Despite the fact that the interest rate MFIs charge is far higher

than what is obtainable in the commercial banks, it is still a source of debt financing for many enterprises. This is largely due to the easy process involved in obtaining loans and the proximity of the MFIs to the enterprises. In some of the interviews conducted, MFIs were mentioned to have come to the enterprises, to educate and grant credit facilities. Overtime, the relationship has been established and many credit facilities have been enjoyed.

Microfinance has been particularly successful in densely populated urban areas and in countries with large informal sectors such as Nigeria. Successful rural microfinance requires that financial officers be knowledgeable about local rural and agricultural markets, standard crop cycles, and seasonal fluctuations in revenues and expenditures.

2.4 Major obstacles to bank lending to MSMEs

In accessing finance, the most preferred external source of finance for MSMEs is a debt-financing option, as explained by the pecking order theory (Myers & Majluf, 1984) because of less interference in ownership independence, tax holiday and other characteristics it offers. It is also believed that commercial banks offer the highest chunk of debt finance in an economy (Abe et al., 2012). Bank lending to MSMEs is not without challenges: high transaction and administrative costs stemming from problems of asymmetric information and high-risk perception, and lack of collateral remain major constraints of MSMEs' access to bank debt financing. Banks for their part see the weak enforcement of corporate governance, accounting and auditing, and a general lack of transparency that results in a lack of trust throughout the whole system, especially in the MSME subsector, as reasons why credit is a constraint in the economy (Iarossi, Mousley & Radwan 2009). According to Isern et al. (2009), the main reasons that Nigerian MSMEs gave for not applying for loans from the bank were: (i) cumbersome application procedures, (ii) high interest rates, (iii) inaccessible collateral requirements, and (iv) loan terms (maturities) are much shorter than MSMEs require.

CHAPTER THREE
MSMEs AND EMPLOYMENT GENERATION IN NIGERIA

3.0 INTRODUCTION

The world has come to recognise the significant role MSMEs[3] play in any economy's development to include employment generation, increase in output and source of export (IFC, 2013a). At the same time, the literature explains that 50% or more of these MSMEs do not survive beyond five years after establishment (Smallbone, 1998). Haltiwanger, Jarmin, & Miranda, (2013) posited that the prowess of small firms' job creation lies in the start-up and young businesses. Critically analysing these last two statements implies that some of the employment generated and output and export created by these MSMEs are unsustainable because of the higher failure rates associated with the young small enterprises. If this is the case, then there is a need to ascertain if MSMEs are actually fulfilling the role acclaimed by the literature, specifically in the Nigerian economy.

This study analyses the impact of MSMEs on job creation and destruction in the Nigerian economy, using the 2014 World Bank Enterprise Survey Data (WBESD). This study is unique in relation to all other studies in this respect in the Nigerian economy in terms of coverage (the data used is country wide) and the method (the econometric estimation technique was employed). To the best of the writer's knowledge, there is no study that has done any econometric analysis on the employment-generating ability of MSMEs in Nigeria. To revisit Birch's thesis vis-à-vis the conclusion by Davis, Haltiwanger, & Schuh, (1996b), this work examined which of the assertions of Birch (1987) and Davis, Haltiwanger, & Schuh, (1996a) are applicable in the Nigerian context.

Section 3.1 provides some stylised facts about MSMEs in Nigeria before moving to the issue of unemployment in Sub-Saharan Africa, and specifically Nigeria, in Section 3.2. The issue of the high unemployment rate in Nigeria explains why we are interested in the employment generating ability of MSMEs. Section 3.3 is a review of the literature. Section 3.4 describes the data used, as well as the methodology adopted. Section 3.5 is an econometric analysis of the impact of MSMEs in employment generation in Nigeria, and Section 3.6 discusses the results obtained. The chapter concludes in Section 3.7 with a summary of the work and the policy implication.

3.1 OVERVIEW OF THE MSMES IN NIGERIA

3.1.1 Structure of the Nigerian MSMEs Distribution

There is no single universally acceptable definition of MSMEs, the definition ranges from one country to another and from one sector of the economy to another. However, MSMEs are normally defined

[3] MSMEs is defined along the employment line. Otherwise stated, Micro enterprises have employment of less than 5, Small enterprises employ between 5 and 19, while Medium enterprises employ between 20 and 99.

along these three lines: the level of investment capitalisation, sales turnover and the number of employees in an establishment.

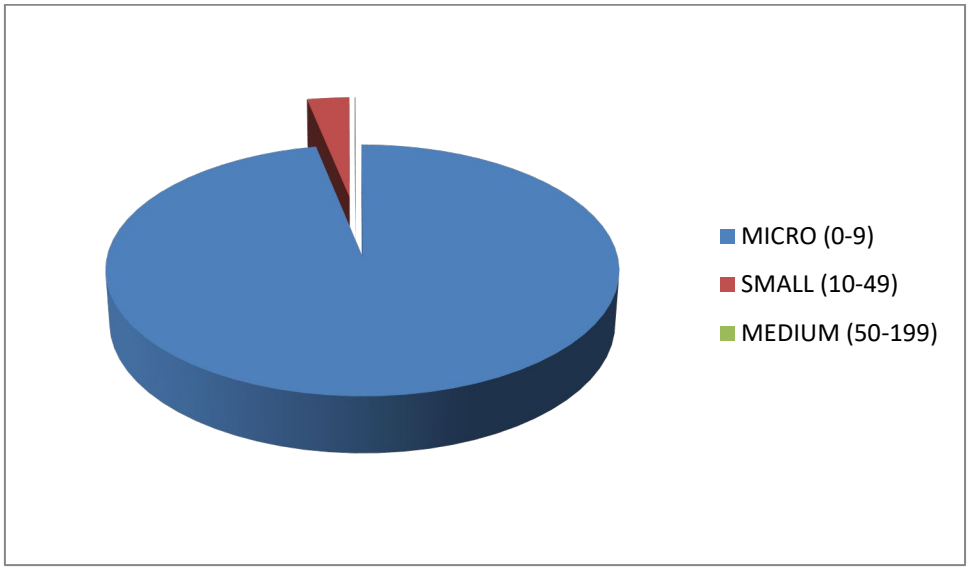
Table 3.1: Definition of MSMEs

BODY	CATEGORY	VALUE	MEASUREMENT
World Bank	SME	≤ 300 employees; ≤ $15 million turnovers; ≤ $15 million assets.	Employment, Turnover, and Assets
European Union	Micro	< 10 Employees; ≤ € 2 million Turnover or ≤ € 10 million Balance sheet totals.	Employment, Turnover and Balance sheet total
	Small	< 50 Employees; ≤ € 10 million Turnover or ≤ € 10 million Balance sheet totals.	
	Medium	< 250 Employees; ≤ € 50 million Turnover or ≤ € 43 million Balance sheet totals.	
UNDP	SME	≤ 200 Employees	Employment
USA	Micro	< 20 Employees	Employment
	Small	20 – 99 Employees	
	Medium	100 – 499 Employees	
Japan	Manufacturing	< 300 Employees or Asset Capital < ¥ 100 million	Employment or Asset Capitalisation
		< 50 Employees or Asset Capital < ¥ 30 million	
	Wholesale	< 300 Employees or Asset Capital < ¥ 10 million	
	Retail & Services		
China	**Manufacturing**		Employment and Turnover
	Micro	< 20 Employees and Turnover < Yuan 3 million	
	Small	20 – 299 Employees and Turnover Yuan 3 - 19.99 million	
	Medium	300 – 1000 Employees and Turnover Yuan 20 - 40 million	
	Wholesale		
	Micro	< 5 Employees and Turnover < Yuan 10 million	
	Small	5 – 19 Employees and Turnover Yuan 10 - 49.99 million	
	Medium	20 – 200 Employees and Turnover Yuan 50 - 400 million	
	Retail		
	Micro	< 10 Employees and Turnover < Yuan 5 million	
	Small	10 – 49 Employees and Turnover < Yuan 5 million	
	Medium	50 – 300 Employees and Turnover Yuan 5 - 200 million	
South Africa	Micro	< 5 Employees; < R 150,000 Annual Turnover; < R100,000 Gross Assets	Employees, Annual Turnover and Gross Assets (Excluding Fixed Property)
	Very Small	< 20 Employees; < R200,000 – 500,000 Annual Turnover; < R150,000 – 500,000 Gross Assets	
	Small	< 50 Employees; < R2 million – 25 million Annual Turnover; < R2 million – 4.5 million Gross Assets	
	Medium	< 100 - 200 Employees; < R4 million – 50 million Annual Turnover; < R2 million – 18 million Gross Assets	
Nigeria	Micro	< 10 Employees; <N 5 million Assets	Employment and or Assets (Excluding land and Building)
	Small	10 – 49 Employees; N 5 – 50 million	
	Medium	50 – 199 Employees; N 50 – 199 million	

Source: ESCAP, 2009; Gibson and van der Vaart, 2011; and Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), 2012.

According to the official Nigerian definition of MSMEs, and in line with 2013 data released by SMEDAN, enterprises in Nigeria are predominantly microenterprise, with 96.81% of the total small businesses in Nigeria being microenterprises, 3.12% small enterprises and 0.07% medium enterprises.

Figure 3.1: Enterprise composition by firm size

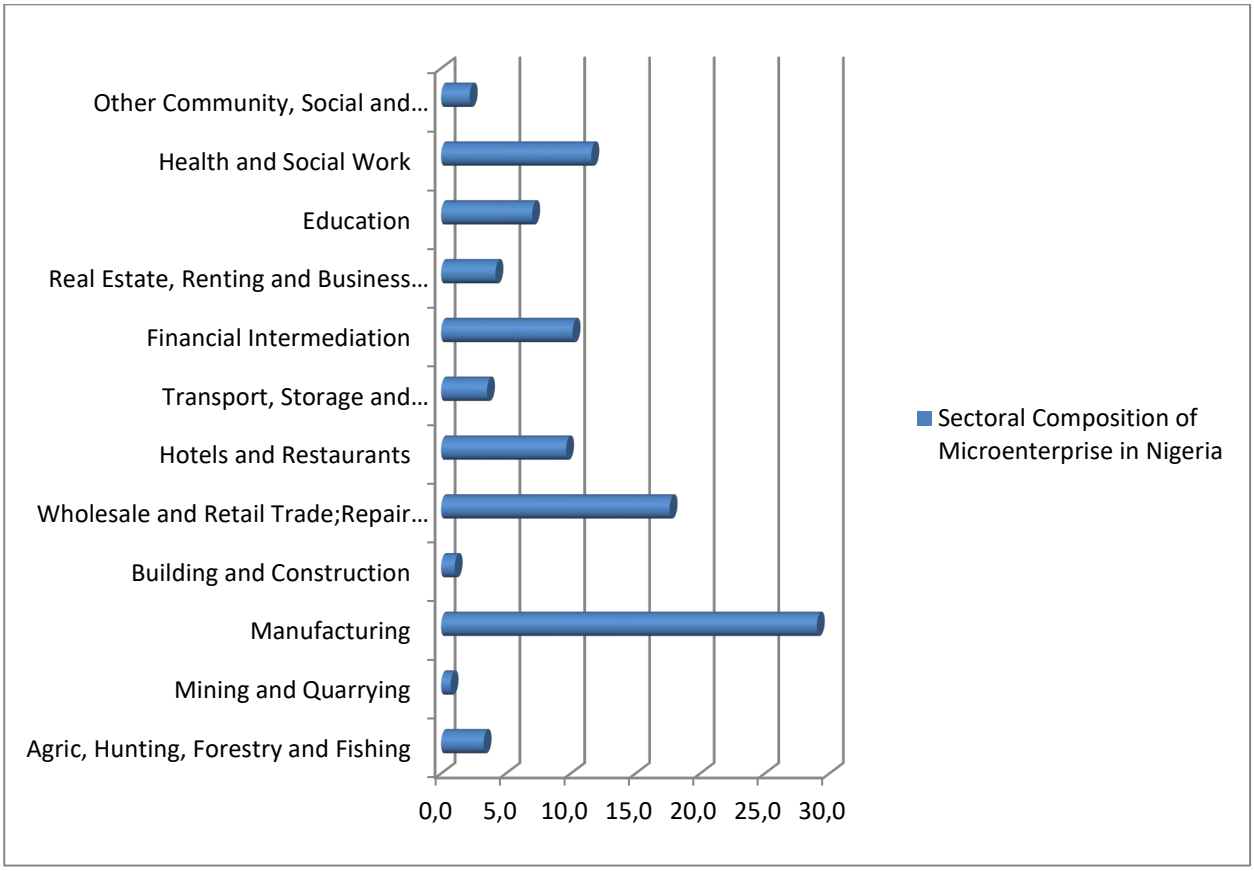


Source: Computed from NBS and SMEDAN survey data of 2013.

3.1.2 Sectoral composition of MSMEs in Nigeria

Figure 3.2 shows the distribution of MSMEs by sector. It reveals that the manufacturing enterprise is the largest, constituting 28%. This is a good characteristic of a developing economy (Solow, 1956). It also reveals that the economy is at the stage of capital accumulation, which is the second stage of development, characterised as a developing economy, drawn from the patterns of development theory of Chenery and Taylor (1968). In the growth of structural changes, the services sector tends to be the largest sector for a developed economy, while the manufacturing sector is normally the largest in a developing economy (Lewis, 1954). Trade constitutes the second largest sector of the MSMEs, amounting to about 17%. Mining and Quarrying constitute the smallest, closely followed by Building and Construction accounting for 0.6% and 1.0% respectively. This could be because in Nigeria, few of the multi-national companies seem to be the dominant players in Mining and Quarrying (Okorie, 2005), as well as the Building and construction sectors (KPMG, 2015).

Figure 3.2: Sectoral composition of MSMEs in Nigeria



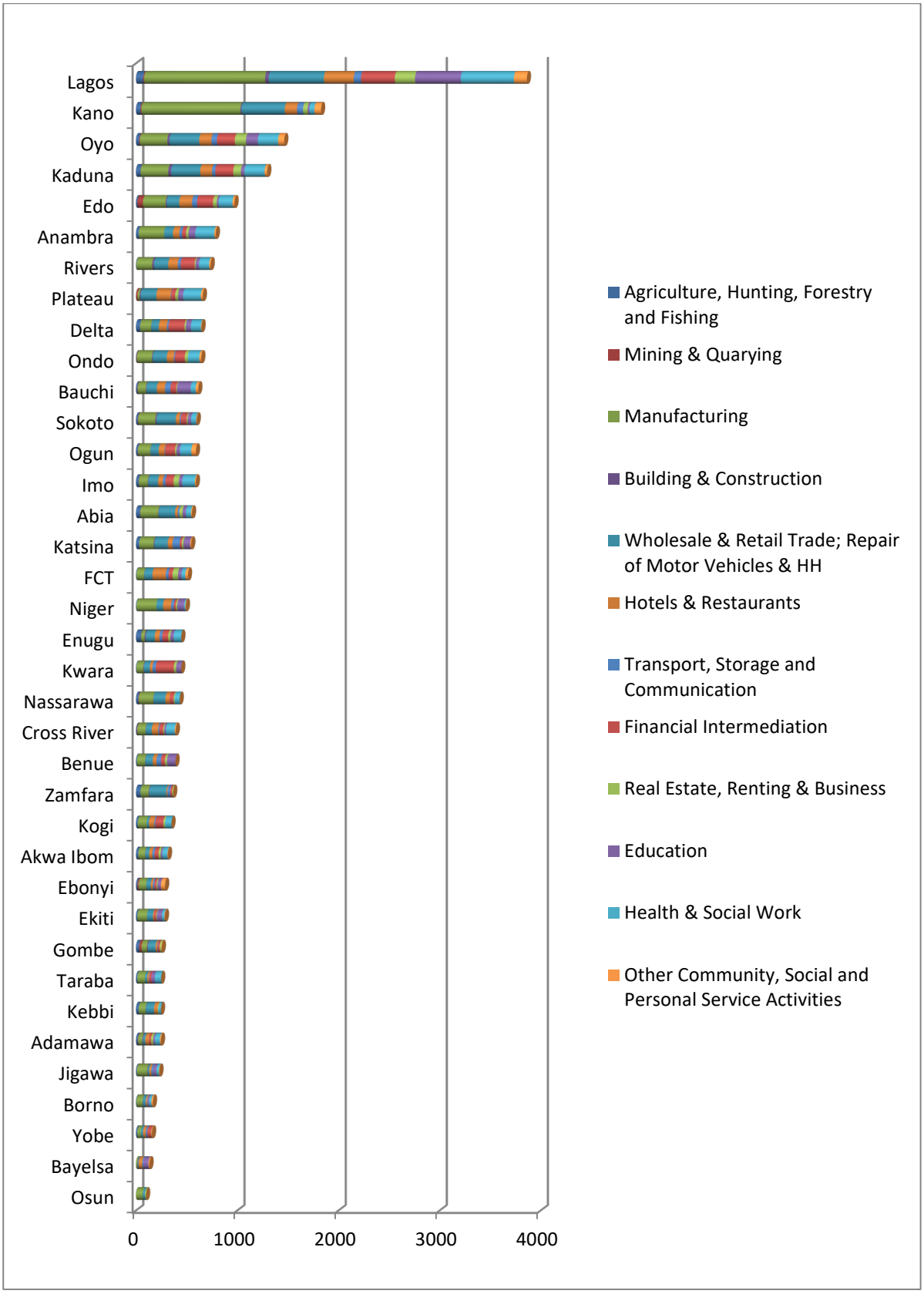
Source: Computed from SMEDAN/NBS survey data of 2010.

To further understand the structure of MSMEs in Nigeria, this study takes a look at distribution of MSMEs across the 36 states in Nigeria.

3.1.3 Sectoral composition of MSMEs in Nigeria by state

Nigeria has 36 states and an administrative federal capital territory. Of these 36 states, Lagos state clearly dominates in the distribution of MSMEs across the country where 35% of all MSMEs in the country are located. Lagos state dominates in almost all sectors except for Mining and Quarrying where Edo state takes the lead. In Transportation, Storage and Communication, Katsina and Lagos have the same percentage share. The sector composition shows that manufacturing has the largest share, with Lagos and Kano accounting for one-third. Lagos has 20 percent of the share of the manufacturing sector in terms of the location of the establishment, while Kano accounts for 16 percent. Next is Oyo state, closely followed by Kaduna state. The state with the least MSMEs is Osun state which has just 68 manufacturing MSMEs, closely followed by Bayelsa, Yobe and Borno states.

Figure 3.3: Sectoral composition of MSMEs in Nigeria by state

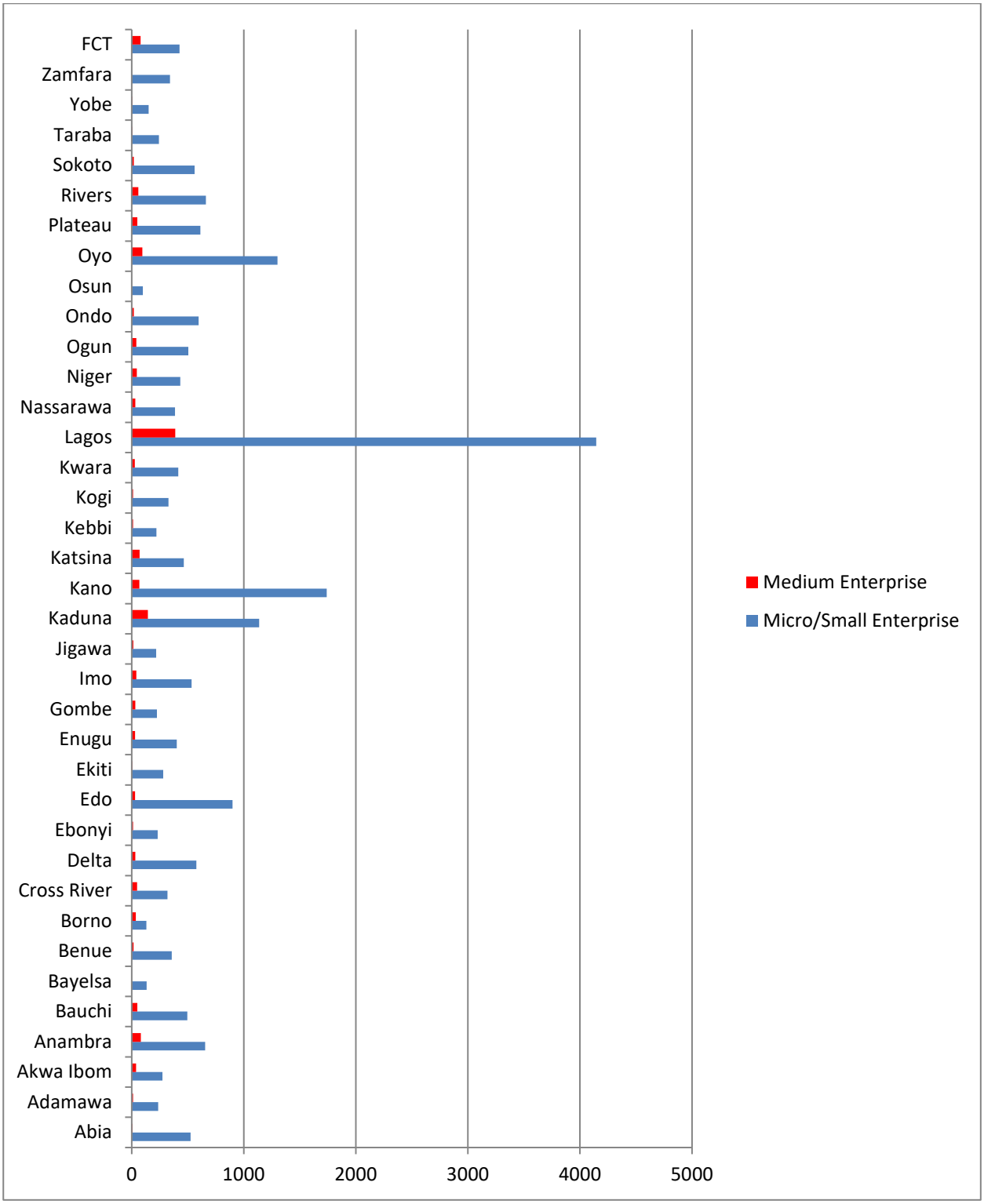


Source: Computed from NBS and SMEDAN survey data of 2010.

3.2 EMPLOYMENT SHARE OF MSMES ACROSS THE COUNTRY

Lagos state accounts for the largest share of the workforce and is the economic hub of the country. This displays the skewness in the development pattern in the country. The distribution also shows that Bayelsa state has no medium enterprise firms and that the 134 micro enterprise firms in the state have a total work force of 134, depicting purely one-man stand-alone businesses. The same applies to Osun, Yobe and Borno states, with Osun state having the least number of enterprises.

Figure 3.4: MSMEs share of employment across the country



Source: Computed from NBS and SMEDAN survey data of 2010.

3.3 UNEMPLOYMENT IN NIGERIA

One of the problems confronting Africa, and Nigeria in particular, is the issue of rising unemployment. Fajana (2000) defined unemployment as a situation where people who are willing to and capable of

working are unable to find suitable paid employment. The International Labour Organization (ILO, 1982) defined 'unemployed' as the number of the economically active population who are without work but are available and seeking a job. This includes those who have voluntarily left their work and are yet to get a replacement job. The issue of unemployment is worse in Sub-Saharan Africa and more pronounced among the youth (aged between 15 and 24) (AERC, 2013). Youth unemployment in Sub-Saharan Africa remains high, with 51% and 43% unemployment rates for young women and men respectively.

According to Williams (2012), Africa has the fastest growing and most youthful population in the world. Over 30% of the population is between 15 and 24 years and it is believed that over 50% of Africa's population is below 15 years, and the implication of this is that these numbers will soon translate into young adults who would want to engage in economic activities very soon (Valle, 2012). According to the International Labour Organization, youth make up as much as 36% of the total working age population and 60% of Africa's unemployed are youth (ILO, 2013).

Nigeria's population is about 182.2 million (National Bureau of Statistics, 2016). The National Population Commission (2013) shows that about half of the population is made up of youths, defined as individuals between 15 and 35 years of age. Unfortunately, as the youth population grows, so does the unemployment rate. The data released by NBS for the first quarter of 2016 shows that out of the youth labour force of about 38.2 million, a total of 15.2 million were either unemployed or underemployed. This represents 42.24 percent of the youth labour force.

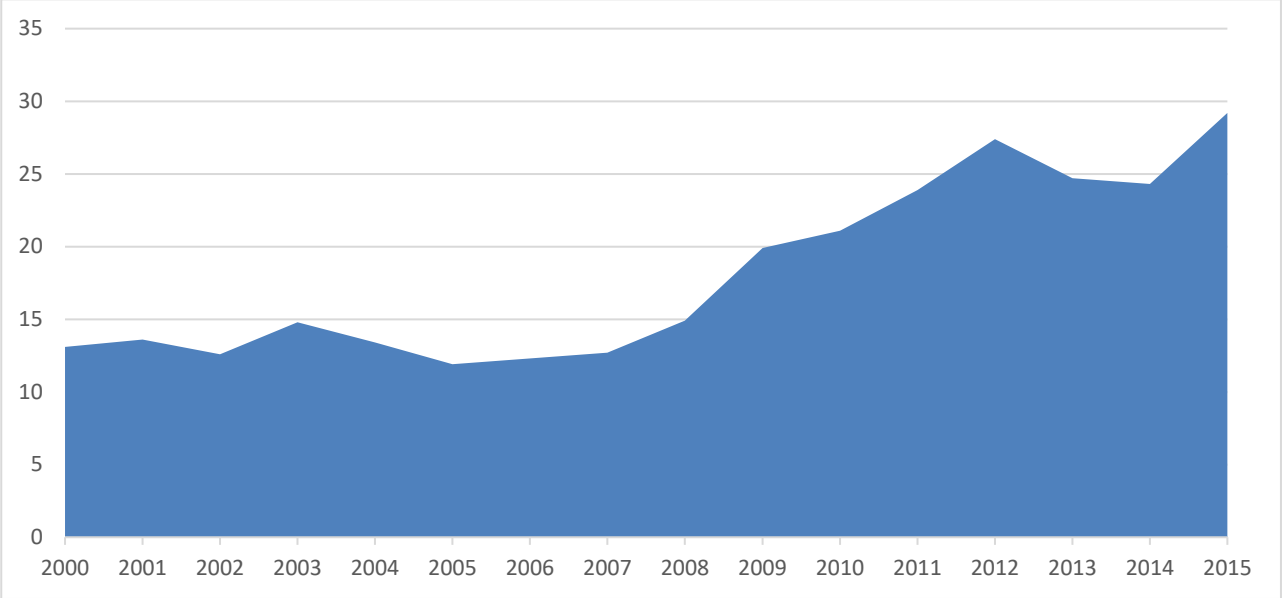
Table 3.2: Labour market description in Nigeria, first quarter of 2016

Nigeria Labour	Last quarter	Previous quarter (before the last)	Highest	Lowest	Unit
Unemployment rate	13.3	12.1	19.7	5.1	Percent
Population	182.2	178.52	182.2	45.15	Million
Unemployed persons	10644	9485.3	10644	4672	Thousand
Youth unemployment rate	24	21.5	24	11.7	Percent
Employed persons	69042.3	69001.3	69042.3	66951	Thousand
Change in employment	79465	499521	499521	79465	Jobs
Employment rate	86.4	87.9	93.6	86.4	Percent

Source: NBS 2016 Annual Socio-Economic Report.

According to the National Bureau of Statistics (NBS, 2016), the unemployment and underemployment rate in Nigeria increased from 24.3 percent in 2014 to 29.2 percent by the end of 2015. Unemployment and underemployment rate averaged 17.05 percent between 1999 and 2015, and reached an all-time high of 29.2 percent in 2015.

Figure 3.5: Unemployment and underemployment rate in Nigeria between 2000 and 2015



Source: Computed from IMF World Economic Outlook (2000-2010) and National Bureau of Statistics data portal (2011-2015).

Table 3.3: Labour market description in Nigeria btw 2006 and 2011

	2006	2007	2008	2009	2010	2011
Population	140,431,790	144,925,607	149,563,227	154,349,250	159,288,426	164,385,656
Economically active	78,922,666	81,448,191	84,054,533	86,744,278	89,520,095	92,384,738
Labour force	57,455,701	59,294,283	61,191,700	63,149,835	65,170,629	67,256,090
Employed	50,388,650	51,763,909	52,074,137	50,709,317	51,224,115	51,181,884
Unemployed	7,067,051	7,530,374	9,117,563	12,440,517	13,946,515	16,074,205
Newly unemployed		463,323	1,587,189	3,322,954	1,505,997	2,127,691

Source: NBS 2011 Annual Socio-Economic Report.

The percentage change in employment generation in Nigeria between the fourth quarter of 2015 and the first quarter of 2016 shows that the Nigerian economy is not in a favourable shape in terms of employment generation. It recorded a negative job creation of 83.1% for the first quarter of the 2016 year on year, and negative 84.1% for the first quarter of 2016 quarter on quarter.

Table 3.4: Percentage change in employment generation

Percentage Changes in Employment Generation				
	Q4, 2015 Year on Year	**Q4, 2015 Quarter on Quarter**	**Q1, 2016 Year on Year**	**Q1, 2016 Quarter on Quarter**
Formal jobs	-80.3%	-34.6%	-83.6%	-21.2%
Informal jobs	109.7%	11.2%	-81.6%	-87.2%
Public sector jobs	-197.7%	-189.0%	-153.1%	-29.2%
Total new jobs	35.2%	5.1%	-83.1%	-84.1%

Source: NBS 2016 Job Creation Survey.

From the data, the incidence of unemployment in Nigeria in the 21st century is alarming. If MSMEs are well attended to, this could put a significant check on this rising unpleasant phenomenon. A substantial percentage of the enterprises in the world are MSMEs and they require a number of supportive structures, provisions and policies to facilitate their development. It is in this light that we decided to investigate whether the MSMEs significantly contribute to job creation in Nigeria.

3.4 LITERATURE REVIEW

According to Birch (1979), one of the potentials of MSMEs is to generate employment and thus reduce unemployment in the economy. Birch (1979) claims that MSMEs are the most important source of employment generation in the US economy, where more than 60% of jobs created between 1969 and 1976 were created by firms with 20 or fewer employees and 81.5% were created by firms with not more than 100 employees. From then on, small businesses were no longer seen as a mere economic sideshow but rather as the main event. Before then, the stance on small businesses is that although they create jobs, they are a net destroyer of jobs. This is due to the survival rate of small businesses which is 50% or less in a time period of five to ten years. Joseph Schumpeter (1942) referred to this creation and destruction of jobs by small businesses as “creative destruction”. Birch (1979) later submitted that the end result of small firms’ creative destruction is a net increase in employment[4].

This led to a lot of research work to ascertain the claim of Birch (1979). Davis et al. (1996a) faulted the statistical analysis method used by Birch, pointing out that the classification of businesses on the basis of the number of employees in an establishment is a faulty method, because classification of businesses by employment size for the 2-point period will bring about the likelihood of two types of error by classifying large firms as small firms. First, firms that are undergoing a negative transitory period where the company has laid off most of their staff to reduce costs will be classified as a small

[4] Net employment refers to the differences in the number of job created less the number of job loss. When it is positive, it means more jobs were created than the number of job loss, which is a **net increase in employment.** When it is negative, it means **net decrease in employment.**

firm based on the number of employees. And second, some large firms are mistakenly classified as small due to random errors in measurement. These two types of enterprises might seem to have grown fast in employment generation by the second point period and this might significantly affect the result depending on the number of firms affected and the sample size under consideration. Another issue of concern is the business environment at the two-time period. Small firms can also be classified as large firms, due to positive shocks which lead to an increase in employment generation, when in the true sense they are small firms. And small firms may be mistakenly classified as large firms due to random errors in measurement. It was submitted that all these factors could have accounted for Birch's conclusion.

Davis et al. (1996b) proposed that statistical pitfalls can be avoided by computing employment generation and destruction rates from the first point period to the second point period instead of using average employment generation level in these two periods. They concluded by saying that the regression fallacy committed by Birch could have accounted for the result obtained. Their result analysis, which was based only on manufacturing sector firm sizes and employment generation growth, is not in tandem with Birch's claims. They found no systematic relationship between manufacturing firms' size and employment generation growth (ibid., 68), using a Longitudinal Research Database covering the period 1973 and 1988, and a new methodological analysis which they argue is not prone to Birch calculation bias. However, their analysis is limited to only one sector of the economy (manufacturing). The fact that small businesses are at a disadvantage in the manufacturing sub-sector because of economies of scale may also be the reason why the two analytical results (Birch, 1979 and Davis et al., 1996b) were different.

Another important issue of concern is the type of job created by these MSMEs. It is argued that it is not only job creation that matters to economic development but the quality of jobs created. Brown, Hamilton, & Medoff, (1990) compared jobs created by small firms and those created by large firms and concluded that jobs created by small firms are less desirable. This view was supported by many reasons such as that wages paid by small firms are generally lower than is obtainable in large firms. Another reason given is that fringe benefits, including medical facilities, health insurance, sport/relaxation facilities, pension plans, and vacation and holiday benefits, are almost non-existent in small businesses. There is also a high rate of job turnover due to the low rate of survival for small businesses, resulting in limited or no job security or career progress. They also argue that the working conditions in small businesses tend to be generally poor with less opportunity for career development in terms of job training and restricted environment (social and physical) in which small businesses operate. The work of Atkinson and Storey (1993) as contained in Smallbone (1998: 6), concluded that "the evidence from both the UK and the USA data suggests that, the job quality provided by small firms is lower than that in large firms… wages are lower, training is less frequent and the evidence for a compensating higher level of job satisfaction is weak". However, Smallbone

(1998) agreed that small businesses offer flexibility in job schedule in terms of work hours and venue, which is an advantage.

Little (1987), in his analysis of small manufacturing enterprises in developing countries, found that small firms are not in any way more labour intensive than the large firms. Biggs, Ramachandran, & Shah, (1998) also found that large firms were the main source of job creation in the manufacturing sector in Sub-Saharan Africa. Beck, Demirguc-Kunt, & Maksimovic, (2005) held that almost all the firm level analyses did not support the contention that small businesses are an effective contributor to job creation. In Beck et al.'s (2005) analysis of data from 45 countries, they found no evidence that small businesses alleviate poverty or decrease income inequality. Decker, Haltiwanger, Jarmin, & Miranda, (2014) in their work titled "The role of entrepreneurship in US job creation and economic dynamism" found that many start-up businesses go into extinction within their first ten years of existence. And those surviving young businesses do not grow but remain small. However, they submitted that a very small fraction of small businesses display high growth tendency in terms of output contribution and job creation. So, there is a need to establish which types and forms of small business have the tendency for job creation and the policy implication of focusing on such small businesses.

However, Smallbone (1998), Ayyagari, Demirguc-Kunt, & Maksimovic, (2011), IFC (2013b) and ILO (2015) found that MSMEs are a major net contributor of jobs in the economy. Smallbone (1998) in his work "SME, employment generation and regional development" concluded that there is a strong link between sales growth and employment growth He therefore suggested a strong case for linking policy support to a firm's growth orientation and performance. Ayyagari et al. (2011), in a unique cross-country analysis of 99 countries, found that small firms with less than 100 employees and mature firms (firms older than ten years) have the largest shares of total employment and job creation ability, with the young small firms standing out in job creation. IFC (2013b) using World Bank Group Enterprise Surveys data for 106 countries, also found that small firms are the primary engine of employment growth in developing countries. ILO's (2015) publication "Small and medium-sized enterprises and decent and productive employment creation", found empirical evidence confirming small businesses to be the engine of job creation in developing economies. The job creation or destruction dynamics is driven by births and deaths, expansions and contractions, and in- and out-migration of firms. This study analysed the impact of MSMEs job creation and destruction in Nigeria using World Bank Enterprise Survey Data.

In order to revisit Birch's (1979) thesis vis-à-vis the conclusion drawn by Davis et al. (1996b), this work examines which of the two assertions is applicable in the Nigerian context. First, there is the problem of limited data on small business in Nigeria. SMEDAN did a comprehensive survey of small business in Nigeria in 2013 but we may not be able to use the data for this analysis because it is

only a one-point dataset and covers only small businesses. However, some inferences will be drawn from it. The only readily available dataset is that of the World Bank Enterprise Survey, which has a component of employees in a firm at the 2013 fiscal year and the 2010 fiscal year which provides a two-point dataset for comparison. With this dataset, we can compare the number of jobs created and destroyed by firm size within the two time periods of three years' interval.

However, there are problems associated with this dataset. First, the data did not examine the informal sector, where the greater number of micro-enterprises in Nigeria lie. Second, there can also be some random measurement errors on the data, from filling the questionnaire to coding. However, this is the only readily available dataset which can be used for an analysis that will give a meaningful result.

Also, the world is yet to completely come out of the woods with regard to the financial crisis that started towards the end of 2007. The impact of the crisis on the Nigerian economy was severe enough in the country's fragile financial sector. This may have brought about a downturn in investment. Credit to the private sector has dropped significantly and is worse for the small businesses, as shown in Figure 1.4. Also, the Nigerian economy is in turmoil due to the drop in the price of petroleum which the main source of fiscal revenue and driver of the exchange rate.

3.5 DESCRIPTION OF THE DATA

This study made use of the 2014 World Bank Enterprise Survey data. The data is a stratified multi-stage random sampling, comprising geographically enumerated areas and cutting across all the sectors of the economy. After cleaning, the first analysis comprises of 2,238 samples: 252 of these are micro enterprises employing less than 5 persons, 1,180 are small enterprises with between 5 and 19 employees, 629 are medium-sized enterprises with between 20 to 99 employees, and 177 are large enterprises with 100 or more employees. The second analysis comprises of 2,249 sample size: 262 are micro enterprises, 1,228 are small enterprises, 609 are medium size firms and 150 are large size firms.

This survey contains information on each enterprise surveyed, the number of employees on establishment, in the 2012 fiscal year and in the 2009 fiscal year. This gave us the opportunity to identify for each firm size in the survey what happened in these two-points period in terms of employment generation and job loss. This enabled the identification of the enterprises (micro, small, medium and large enterprise) that were contributing more significantly to employment generation and less to job loss in the Nigerian economy. In identifying which firm size had been contributing to job creation and job destruction, it is worth noting that this data did not reflect the actual jobs created and lost in these firms throughout the period, it only reflected what the employment levels were in 2009 and 2012 and what obtained in the fiscal year that the enterprise started operation. This data is not capable of capturing the overall detail of what transpired between these two periods. Also, the

time period is a variable that will affect the data obtained. The economic depression occasioned by the 2007 financial crisis is still taking its toll on the world, especially with regard to access to credit for business enterprises, with its concomitant effect on demand and consumption. The resultant effect is a massive downsizing by firms in a bid to stay afloat.

To answer the question of which firm sizes create more jobs, it is crucial to examine all sectors of the economy, not just the manufacturing sector which was the focus of previous studies (Little, 1987; Davis et al., 1996b; and Biggs, Ramachandran, & Shah, 1998). This is a pioneer analysis in Nigeria in terms of identifying which firm size has net job creation ability in Nigeria, cutting across all regions and all sectors of the economy. According to the classification of the firm size by the survey, we examine the significant difference in net job creation ability across firm size categories. Secondly, we non-parametrically estimate the relationship between net employment growth and establishment size to avoid any potential bias or loss of information introduced by using arbitrary size boundaries by representing the information obtained in percentage form.

Our non-parametric analysis uses the locally-weighted scatterplot smoothing (LOWESS) method proposed by Cleveland (1979) and modified by Neumark et al. (2008), outlined as follows:

Step 1: Let y_i be the employment growth rate of observation *i* (an establishment over a two-year period), x_i the size of observation *i* measured using average size definition, and N the total number of observations. The standard implementation of locally-weighted mean smoothing would proceed as follows. Order the data such that $x_i \leq x_{i-1}$ *for all i = 1, …, N-1.* For each y_i, choose the subset of the data that is indexed by *i - = max(1, i-k)* through *i- = min(i+k, N),* where *k= [(N.h – 0.5)/2]* and *h* is the pre-specified bandwidth that indicates the proportion of the data used in the calculation of the smoothed value $\widehat{yi}$. Choose a function that assigns a weight w_i to each observation *j=i-, …, i-;* observations outside of this range are given no weight. For example, one may choose a tri-cubic weight function (the kernel), in which case the smoothed value $\widehat{yi}$ is calculated as:

$$\widehat{yi} = \frac{\sum_{j=i+}^{i+}(wj.yj)}{\sum_{j=i-}^{i+}(wj)}, where\ wj = \left(1 - \left(\frac{\{xj - xi\}}{\Delta}\right)^3\right)^3 \text{ and } \Delta = 1.0001*max(x_{i-} - x_i,\ x_i - x_{i-}). \quad 3.1$$

It can also be worked:

Given a repeated value for many observations, this first method is computationally non-feasible. It would involve calculating the repeated weighted average. Instead, this study utilises the following method where we first compute an average value *y* for each unique value of x and then calculate a smoothed value $\widehat{yi}$ from the reduced dataset.

We use the following procedure. First, order the data such that $x_i \leq x_{i+1}$ *for all I = 1, …, N-1*. For each unique value of xi, create a $z_i = x_i$. Let the total number of *z* be *M* and order all of them such that $z_i <$ z_{i+1} *for all I = 1, …, M-1.* Then, let $yi = \frac{\sum y_{i\epsilon}\widetilde{Yi}^{y_i}}{C(\widetilde{Yi})}$ for all I = 1, …, M, where $\widetilde{Yi} = \{(yi, xi): (xi = zi)\}$ and

C($\widetilde{Yi}$) is the cardinality of $\widetilde{Y}\imath$. Now apply the standard smoothing procedure to the observations *(y_i, z_i)*, except that the weight function is adjusted using the frequency of yi. Again, using a tri-cubic weight function, this amounts to calculating the following smoothed value:

$$\hat{y}\imath = \frac{\sum_{j=i-}^{i+}(wj.yj)}{\sum_{j=i-}^{i+}(wj)} \text{ where } w_j = C(\widetilde{Y}\imath).\left(1-\left(\frac{\{xj-xi\}}{\Delta}\right)^3\right)^3. \quad 3.2$$

These two methods essentially use the same information in the data although they usually assign slightly different smoothed values to different observations. Whereas the standard method gives multiple predicted values for each z_i in cases where there is multiple x_i such that $x_i = z_i$,, our method only returns one predicted value per unique value of *x*.

Non-parametric methods make fewer assumptions and this makes their applicability more acceptable and robust than the parametric methods. Another justification for non-parametric methods is its simplicity. It is easier to use non-parametric methods to parametric methods because of its robustness, and it leaves no room for improper use and misunderstanding. The essence of using non-parametric method here is to avoid any potential biases or loss of information introduced by using arbitrary size boundaries of firm sizes.

However, non-parametric methods have less power to parametric methods if the sample size is not large enough. With large sample size, a non-parametric method can draw the same degree of confidence has that of parametric methods.

3.6 DATA ANALYSIS

The firms have already been categorised into different sizes by the survey result, with micro having less than 5 employees, small firms having between 5 and 19 employees, medium firms having between 20 and 99 employees, and large firms having 100 or more employees. With this categorisation, the study examines the variation in the net job creation across size categories (see Neumark et al., 2008). The study uses the following measures to quantify MSMEs contribution to job creation (see Davis et al., 1996a):

Gross job creation: the positive difference in employment generated within the two-point period under consideration. The two-point period is 2009 fiscal year and 2012 fiscal year, as well as 2012 and the fiscal year the firm started operation.

Gross job destruction: the negative difference in employment generated within the two-point period under consideration.

Net job creation: the absolute difference in the employment generated within the two-point period under consideration. It can either be positive or negative. When it is positive, we say the firm is a net job creator and when it is negative, we say the firm is a net job destroyer.

3.7 RESULT OF THE ANALYSIS

Two analyses were conducted and different results were obtained. The first analysis was on the number of employees in the firm between the two-point period of 2012 fiscal year and 2009 fiscal year; while the second analysis was the number of employees in the firm in the fiscal year the firm started operation and the number of employees in the firm in the 2012 fiscal year.

Table 3.5: First result (2012 and 2009 fiscal year number of the employees)

Enterprise Size / Number of employees	Micro	Small	Medium	Large
L1: Gross number of employees in 2012 fiscal year	2259	14,920	17,989	60,493
L2: Gross number of employees in 2009 fiscal year	1152	10,913	15,824	62,399
Net jobs created = (A1-A2)	1107	4,007	2,165	-1906
Net jobs created in percentage	96.09%	36.72%	13.68%	-3.05%

Source: Computed by the author from the World Bank Enterprise Survey data on Nigeria (2014).

This result shows that during the timeframe under consideration, and for the firms surveyed, all categories of firms were net job creator with the exception of Large firms that is a net job destroyer. Large firms witnessed abysmal performance, recording a negative growth value of 305%. As indicated earlier, the period under consideration is a factor affecting the result. The economy the world over has been sluggish following the financial crisis that started in 2007. The world economy is not yet out of the woods and Nigeria is no exception. This is coupled with the harsh economic environment, particularly, poverty and poor infrastructural development which are major problems confronting the Nigerian economy. However, the results point to the fact that small businesses are better in terms of net job creation than large firms. Micro firms perform the best with a net job creation of 96.09%, followed by small firms. Small firms had a net job creation of 36.72%, while Medium firms had a net job creation of 13.68%. This is in tandem with the findings of Birch (1979 and 1987), Neumark et al., (2008) and recently the research output by IFC (2013b) and ILO (2015). According to IFC, jobs in small and medium enterprises account for more than half of all formal employment worldwide, with developing countries having on average 66 percent of the permanent and full-time employment share. In the informal sector, small businesses account for 50 percent of the total labour force as shown in the IFC (2013b) findings.

We carried-out the analysis of variance test, as a reliability test to see if there is a significant difference in the mean value of the two variables. The result shows that there is a significant difference in the mean value. Therefore, we rejected the null hypothesis of no significant difference in the mean value and accepted the alternative hypothesis.

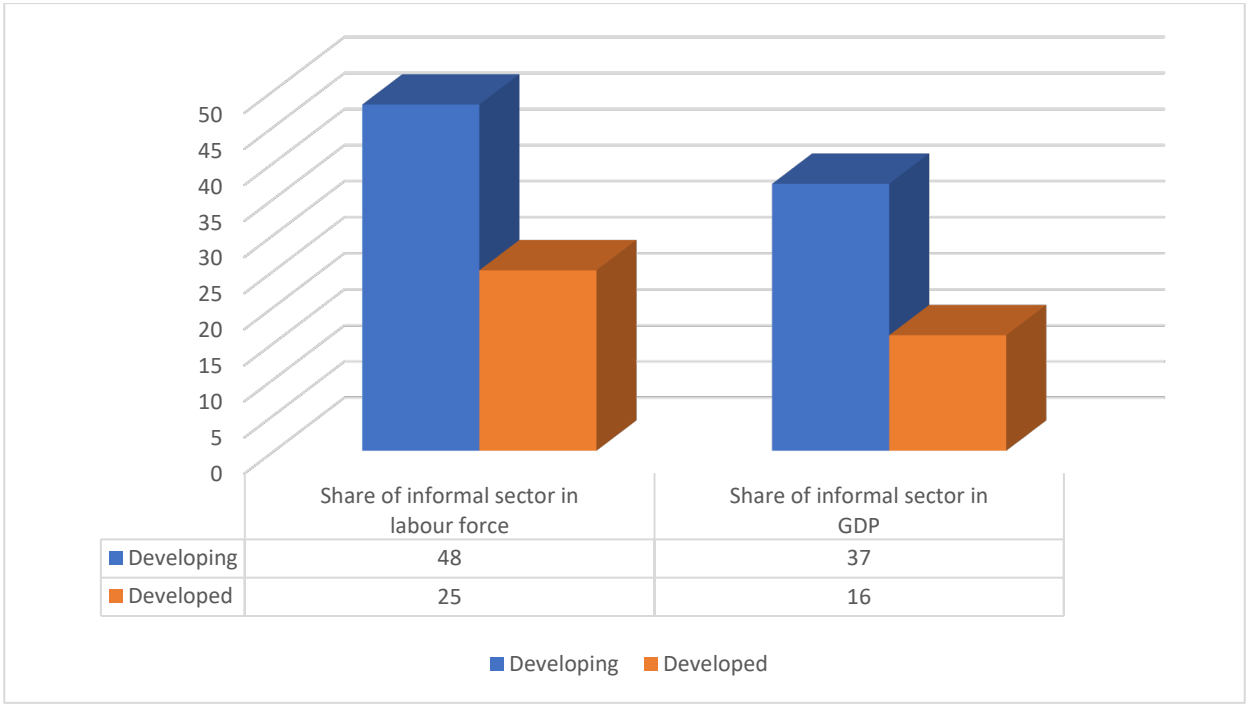
Table 3.6: Analysis of Variance Test (ANOVA)

```
. anova L1 L2
```

Number of obs =	2,238	R-squared	=	0.9796	
Root MSE =	33.971	Adj R-squared	=	0.9783	

Source	Partial SS	df	MS	F	Prob>F
Model	1.165e+08	134	869291.37	753.27	0.0000
L2	1.165e+08	134	869291.37	753.27	0.0000
Residual	2426916.1	2,103	1154.0257		
Total	1.189e+08	2,237	53156.889		

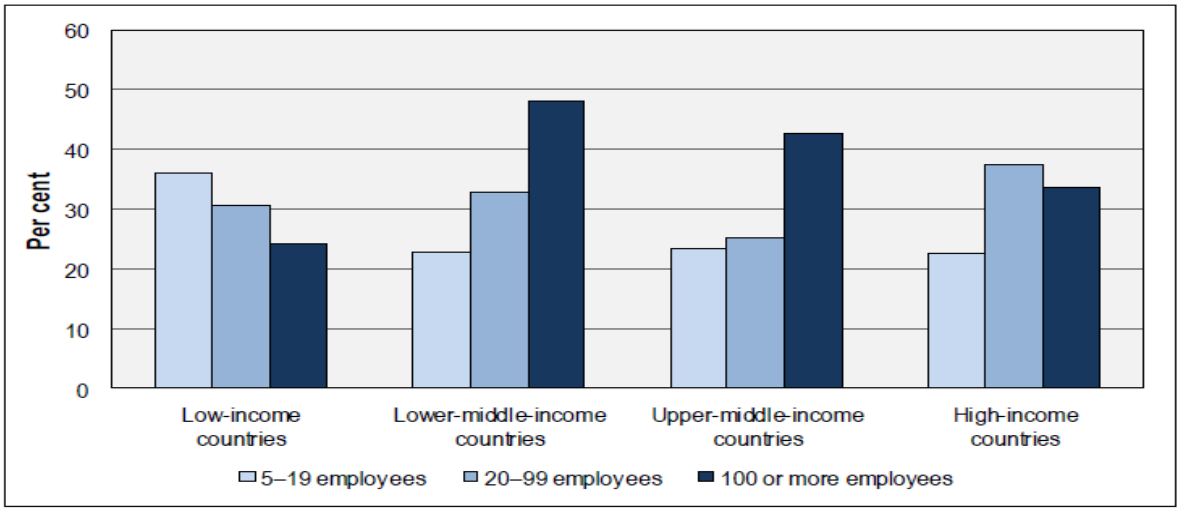
Figure 3.6: Share of informal sector in employment and output in developed and developing economies



Source: Financial Inclusion Expert Group (2010).

According to ILO (2015), small business's net share of job creation is 54 percent compared to larger firms at 46 percent in the low-middle-income countries.

Figure 3.7: Firm size composition of employment by income group



Source: De Kok et al. (2013), based on Ayyagari et al. (2013), appendix.

SMEDAN and NBS carried out a comprehensive survey in 2013 which shows that informal micro businesses dominated the Nigerian enterprises with a 98 percent share of the entire enterprises in the country. In actual number, informal micro enterprises accounted for 36,994,578 enterprises in the country (SMEDAN and NBS, 2013). According to this report, small businesses employed 57,836,391 people in Nigeria. The distribution of employment shares by categories of small businesses in Nigeria as reported is given below:

Table 3.7: Small businesses share of employment in Nigeria

Employment by firm size	2013	Percentage
Micro (0-9)	57,836,391	96.81
Small (10-49)	1,863,749	3.12
Medium (50-199)	40,071	0.07
Total	**59,740,211**	**100**

Source: Computed from SMEDAN and NBS National MSMEs Survey Report (2013).

This clearly shows that small businesses are the net job providers in the Nigerian economy, accounting for over 80% of employment in the economy: in absolute terms, 59,740,211 jobs, representing 84.02% of the total labour force. In 2013 the country had an unemployment rate of 23.2%, as shown in the NBS data.

Table 3.8: Second result (number of employees in the 2012 fiscal year and the fiscal year in which each firm surveyed started operation)

Enterprise size / Number of employees	Micro	Small	Medium	Large
L1: Gross number of employees in 2012 fiscal year	2362	16,400	16,506	38,571
B6: Gross number of employees in the fiscal year the firm was established	1072	9,071	11,463	26,230
Net jobs created = (L1-B6)	1290	7,329	5,043	12,341
Net jobs created in percentage	120.34%	80.80%	43.99%	47.05%

Source: Computed by the Author from the World Bank Enterprise Survey data on Nigeria (2013).

This second analysis confirms that the job creation ability of small firms actually lies in the starting-up and that those jobs may not all be sustainable as depicted in Table 3.7. However, the good news is that the rate at which small businesses spring up makes small businesses to be a net job creator instead of being a net job destroyer. There is evidence that suggest that large enterprises retrench more than the small enterprises during crises, and that small enterprises are less affected by the crisis (Ibrahim, Suhaimi & Chong, 2015; Lai, Saridakis, Blackburn & Johnstone, 2016). We can therefore submit that small businesses have a better ability to create more jobs during economic downturns. According to SMEDAN (2013) report analysis, the number of micro-enterprises in the country went up by 53.34% between 2010 and 2013. Therefore, we can submit that, given the needed support, small businesses will be able to do a good job in reducing the unemployment rate in the country.

We carried-out the analysis of variance test has a reliability test to see if there is a significant difference in the mean value of the two variables. The result shows that there is a significant difference in the mean value. Therefore, we rejected the null hypothesis of no significant difference in the mean value and accepted the alternative hypothesis.

Table 3.9: Analysis of Variance Test (ANOVA)

Variables	Coefficients	F-stats
Difference in Gross number of employees in 2012 fiscal year and the fiscal year the firm was established	4978375***	120.58
Residual	9671293.8	
Number of observations	2248	
Adjusted R-Squared	0.84	
Root MSE	67	

Source: Computed by the Author from the World Bank Enterprise Survey data on Nigeria (2013).

To reduce unemployment drastically, there is a trade-off between quality and quantity, just as there is a trade-off between inflation and unemployment. If we want to uphold quality, then we might be forcing firms not to employ as many as are needed but rather as much as they can offer quality. This is not to say that quality should be traded completely but rather quality should not be a priority for a short period of time of reducing unemployment in the economy. It is rational in the sense that a child learns to stand before walking and to walk before running. Any attempt to muddle things together may defeat the whole aim.

3.8 CONCLUSION AND POLICY IMPLICATIONS

This study set out to find the impact of MSMEs on employment generation in the Nigerian economy. The study employed data sourced from the World Bank Enterprise survey of 2013 and used non-parametric analysis of the locally-weighted scatterplot smoothing (LOWESS) method to find whether small businesses are net creators or destroyers of jobs. The essence of this research is to ascertain whether MSMEs are actually fulfilling the significant role ascribed to them by the literature in terms of employment generation. This is to ensure a proper understanding of the importance of MSMEs in employment generation.

There were two analyses in this study. The first looked at the number of employees in firms between the fiscal years 2012 and 2009, and the result shows that all categories of firms with the exception of large size enterprises were net job creator, with large enterprises performing abysmally during the period. The second analysis looked at the number of employees between the fiscal year each firm started operation and the 2012 fiscal year. It found that all categories of firm size enterprises were net creator of jobs, with micro enterprise recording over 120% increase in job. This confirms without doubt that small businesses have the tendencies to create more jobs than large firms. The two analyses follow the same trend with micro firms out performing all the other firms in terms of net job creation. This is followed closely by small size firms, then medium size and lagging behind is the

large size firms. In a real sense, all the past analyses were actually right. The problem however, with previous analyses indicating that small businesses were a net destroyer of jobs was that, they considered only the manufacturing sector in which small firms did not have a comparative advantage. Secondly, they were not looking at the broader picture with respect to the rate at which small businesses sprung up. According to SMEDAN (2013) report analysis, the number of micro-enterprises in the country went up by 53.34% between 2010 and 2013. Therefore, we can admit that given the needed support, small businesses, despite their high rate of closure, will be able to do a good job in reducing the unemployment rate in the economy.

Using a simple computational difference on the data obtained from the World Bank Enterprise Survey, small businesses performed better than large firms with regard to employment generation in Nigeria. This confirms Birch's (1979) claim that small businesses are the most important source of employment generation, and specifically in Nigerian.

In the light of the findings emanating from this research, the following policy implications are imperative. Governments and other relevant stakeholders in developing countries such as Nigeria dealing with issues of high unemployment should consider MSME support and development as a necessary condition in their effort to reduce unemployment. Secondly, policymakers in developing countries such as Nigeria should provide the necessary infrastructure for MSME development through the creation of innovation hubs and clusters to enhance MSMEs' ability to generate more employment.

CHAPTER FOUR
MSMEs' PRODUCTIVITY IN NIGERIA

4.0 INTRODUCTION

This section examines MSMEs' contribution to output growth rate in the Nigerian economy, using the World Bank enterprise survey data for Nigeria. The link between MSMEs' output and economic growth stems from its ability to boost competition and entrepreneurship, which in turn have spill-over effects for innovation, aggregate productivity, and efficiency in an economy (Beck et al., 2005). However, factors that determine MSMEs' output shares, output composition, market orientation and location (Tambunan, 2008) are constrained in Nigeria. These factors are natural and technical endowments, favourable business environment, level of infrastructural development and government support (such as the provision of necessary information on business opportunities, capacity training, monitoring and mentoring, and loan guarantee schemes). In Nigeria, there is a huge infrastructural gap, inadequate institutional support and unsupportive credit environment, resulting in low investment commitment to bring start-up and young firms up to a commercial scale. These factors, coupled with scarce entrepreneurship, is crippling the output expansion of MSMEs in Nigeria. This study therefore seeks to examine the impact of MSMEs on output growth.

There is consensus in the literature that MSMEs generally contribute to the output of the economy (Beck, Demirgüç-Kunt, & Levine, 2003; IFC, 2013a; Decker et al., 2014; ILO, 2015). The question, therefore, is, to what extent are MSMEs contributing to economic growth, specifically in Nigeria?

From the supply angle, output growth in MSMEs can be identified from three sources: increase in the number of establishments (taking into consideration the fact that the number of employees and output of the existing firms held constant), the increase in number of employees (with the number of firms and labour productivity held constant), and increase in output or productivity, which can be termed efficiency (holding constant the number of firms and employees in each firm), or a combination of the three factors. This study was basically limited to the increase in the output or productivity, due to the nature of the data used.

IFC (2013a) found that the increase in employment for microenterprise firms outweighs the increase in productivity, and that microenterprise firms have the least productivity growth rate among all types of firm sizes. IFC's result affirms that the result is tenable across all sectors of the economy as well as across regions and country income groups. However, ILO (2015) is of the opinion that small firms exhibit this trend of lower productivity in the manufacturing and services sector only, while ascertaining that young (1-5 years old) small firms have the highest growth rates. IFC concluded that, on average, larger enterprises are more productive than the small businesses because they benefit from economies of scale and invest more in machinery and skilled development. They also display tendencies to develop new products and make use of outsourcing that tends to increase

workers' productivity (they tend to be more innovative). African Development Bank's (AfDB, 2010) report also confirms that microenterprise firms are the least productive of all sizes of firm. There is a need, therefore, to ascertain which applies in the Nigerian economy.

Modern theories on MSMEs (Pro-SMEs policy thesis and flexible specialisation theory) specify that MSMEs play two important roles simultaneously: economic growth acceleration through an increase in their output, and poverty reduction through job creation and income generation effects. There are also the indirect effects of growth-linkage on employment, consumption and investment that positively impact economic growth.

Therefore, MSMEs firms are highly heterogeneous, hence there cannot be one single trend pattern of explanation for their contribution to output. Also, in developing countries such as Nigeria, where MSMEs are often characterised by the high presence of informal microenterprises and few small and medium-sized enterprises, there is need to empirically investigate the contribution of MSMEs to output growth. This will enable a proper segmentation of the heterogeneous MSMEs into those which will be good for income stabilisation policy, employment creation and productivity increase, for the purpose of a suitable intervention. It is in this light that this study examines the relationship between MSMEs output productivity growth rate in Nigeria.

4.1 MSMEs AND EXPORT

One importance of MSMEs is their contribution to export growth. In Nigeria, however, evidence shows that Nigerian MSMEs are still far from playing any significant role in the international market. The National MSME Survey Report (SMEDAN & NBS, 2013) put the total value of Nigerian MSMEs export ratio of GDP at 7.27% for the year 2013. The total contribution of MSMEs to output was put at 48.47% for the same year (2013), of which microenterprises contributed 80.76%. This shows that the MSMEs have not been able to penetrate the international market given the fact that informal microenterprises dominate small businesses in Nigeria. Expanding the MSMEs' capability to operate in the global market through market information and support will bring about an increase in the output productivity growth rate, as well as generating more jobs and income.

4.2 FACTORS AFFECTING MSMEs OUTPUT IN NIGERIA

There are many factors affecting the development of small businesses in the Nigerian economy. These factors include poor infrastructural development, an unsupportive credit market, inadequate institutional support and the issue of globalisation (dumping).

4.2.1 Huge infrastructural deficit

The level of infrastructural development in a country, to a great extent, determines the productivity of the economy (Ekeledo & Bewayo, 2009). One of the major factors affecting MSMEs' output is the huge infrastructural deficit in Nigeria. Nigeria has huge infrastructure deficit in road connectivity, rail penetration and the level of energy available for consumption as outline in figure 4.1.

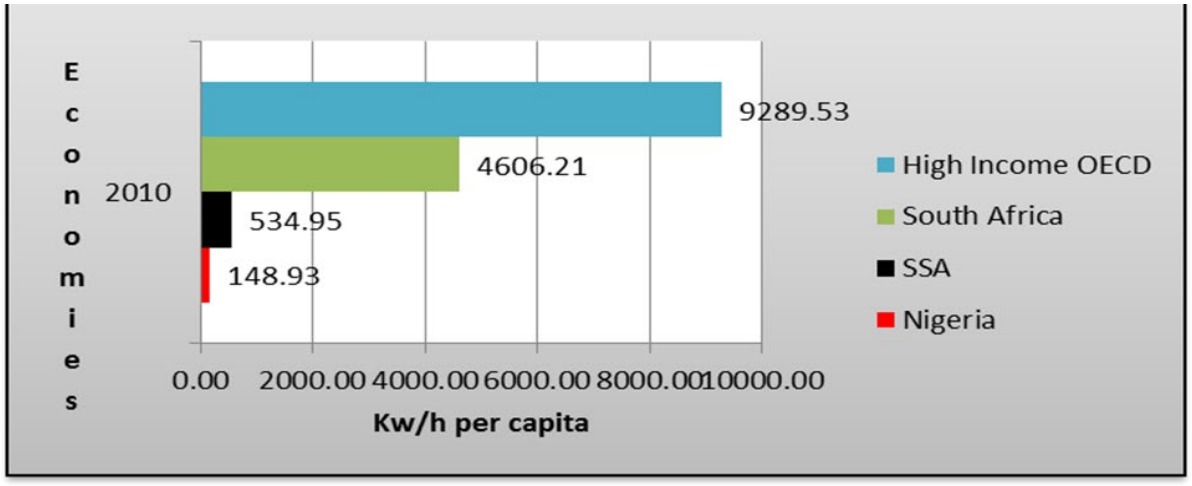
Figure 4.1: Selected Infrastructure Deficits in Nigeria

Infrastructure	Units	Nigeria	World average
Road Connectivity	Roads (KmS/Sq. Km surface area)	0.21	0.46
	Roads Penetration (Kms per '000 population	1.29	10.15
Rail Penetration	Total length of railway lines	3505 Kms	
	Rail Lines (Km/000sq. Kms)	3.8	9.20
Energy	Production (Bn KW)	22.11 Bn KWh	19020 Bn KWh
	Consumption (BnKW)	15.85 Bn Kwh	17480 Bn KWh

Source: World Bank, 2010

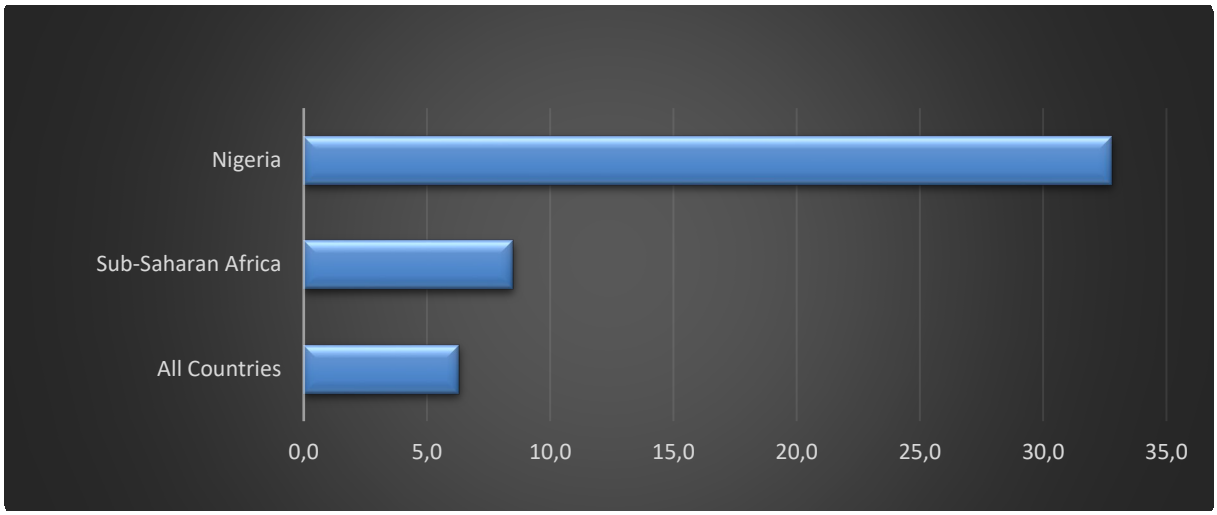
The majority of the rural areas in the country are still not connected to the national electricity grid, forcing the masses to use alternative power sources. The areas covered by the national grid are not in any way better because of the incessant power failures. Observing the relationship between the value of electric power consumption (KWh per capita) in Nigeria and Ghana between 1980 and 2014, it was discovered that while Ghana (with a population of 25 million) on average was consuming 313.99KWh, Nigeria (with a population of 180 million) was consuming 102.99KWh. Vietnam, with a lower GDP growth rate, has been able to achieve hundred percent rural electrification, while more than 50% of the Nigerian population is yet to be on the national grid (World Bank, 2015).

Figure 4.2: Benchmarking electricity use per capita



Source: World Bank, 2015.

Figure 4.3: Number of electrical outages in a typical month

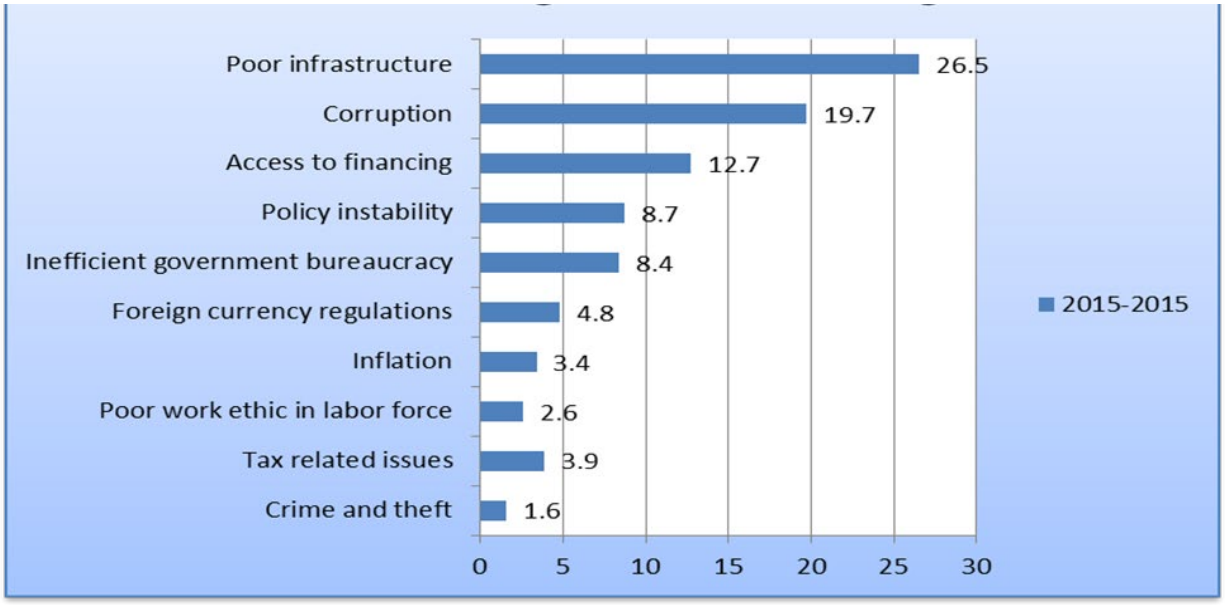


Source: World Bank Enterprise Survey (2014)

The gap between Nigeria and other comparable developing countries in electricity access and consumption is huge. South Africa, with a population of less than a third of the Nigerian population, generates on average more than nine times the electricity generated by Nigeria. On average, South Africa generates 4,353.65 KWh per capita (World Bank, 2015).

The lack of access to a stable supply of electricity and all other forms of infrastructure is taking a great toll on the Nigerian economy, which affects the capacity utilisation in all forms and sizes of enterprise and hurts the contribution of MSMEs to the economic growth of the country. Frequent outages in electricity supply can affect output levels, with adverse implications for firm productivity

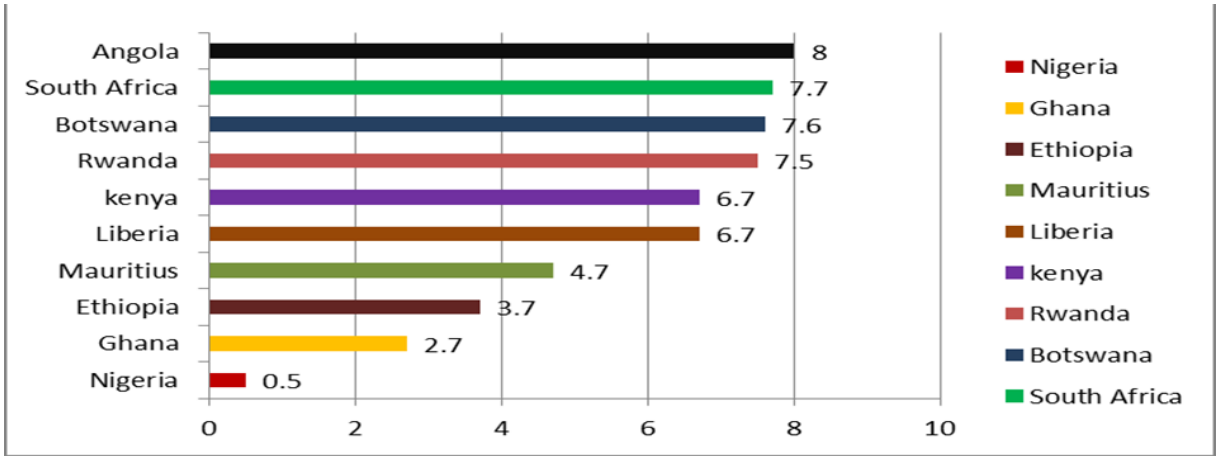
and efficiency, especially for MSMEs that cannot afford alternative sources of electricity (Figure 4.3).Figure 4.4: Factors affecting enterprise operations in Nigeria (World Bank Enterprise Survey, 2014)



Source: World Economic Forum Global Competitiveness Index, 2015

Over the years, the Nigerian government's commitment to investment in the infrastructural sector of the economy has been low. For example, Figure 4.4 shows that in 2013, Nigeria's budget for capital investment in infrastructure was just 0.5%, about the least in Africa.

Figure 4.5: Government capital expenditure on infrastructure as a ratio of GDP in sub-Saharan Africa



Source: World Bank, 2015

The roads in Nigeria are poorly maintained and are often cited as a cause of the country's high rate of fatal road accidents. According to the World Health Organization's (2013) report titled 'Road Safety in the WHO African Region', Nigerian roads were adjudged to be the most dangerous in Africa. It

identifies Nigerian roads with the highest fatality at 33.7 deaths per 100,000 population per year. The road network is a strong factor that poses danger to enterprise growth with regard to the huge cost of maintenance on transportation facilities, as well as more time spent in movement, and valuable lives and resources being destroyed daily through road accidents.

4.2.2 Access to finance

The growth of MSMEs depends on the ability to overcome the credit constraint. Investing in capital requires greater access to finance. Ogujiuba (2004) noted that lack of adequate and timely access to finance is a key obstacle to the growth and profitability of MSMEs in developing countries. The absence of efficiently operating rural financial markets is a serious constraint on sustainable rural MSME development in the developing countries. Financial access by MSMEs increases income through productive investment and also helps to create employment opportunities through an increase in MSMEs activities (Isern et al., 2009).

To diagnose the problems militating against MSMEs in Nigeria, SMEDAN) and NBS in 2010 and 2013 conducted a nationwide survey on MSMEs which, found among many other things, that access to credit is one of the top priority areas of assistance that the MSMEs need and want. Bamkole (KPMG, 2014) listed six broad constraints that limit the growth of MSMEs in Nigeria using the acronym “MISFIT” to represent problems of access to Market, Infrastructure, Support services, Finance, Information and Technology. He submitted that of the six constraints, access to finance is of high priority (KPMG, 2014).

In accessing finance, the preferred external source of finance for MSMEs is the debt-financing option, as explained by the pecking order theory (Myers & Majluf, 1984) because of the ownership independence and other characteristics it offers. Commercial banks offer the highest chunk of debt finance in most economies (Abe et al., 2012). Bank lending to MSMEs is not without challenges: High transaction and administrative costs stemming from problems of asymmetric information and high-risk perception, and lack of collateral remain major constraints of MSMEs’ access to appropriate external financing.

The Nigerian government and all the stakeholders have a lot of work to do in this area. The starting point is developing a wholesome credit guarantee scheme that will allay the fears of the commercial banks from granting credit to small businesses and ease the burden of access to credit for small businesses.

The problem of access to finance for small businesses is not peculiar to Nigeria, it is a global phenomenon. However, it is worse in some regions than others. Unfortunately, the African region is one of those regions worse off. Dalberg Global Development Advisors (2011) showed that MSMEs in Africa and South Asia suffer the greatest credit gap in the world. Over 50% of MSMEs in Africa and South Asia have no access to credit. The credit gap for MSMEs in Sub-Saharan Africa alone is

valued at between 140 and 170 billion U.S. dollars. This clearly demonstrates that access to finance is a perennial source of problems to MSMEs' growth in Africa and Nigeria in particular.

4.2.3 Globalisation (dumping)

Trade liberalisation currently enforced by the World Trade Organization (WTO) from the Uruguay Round Table Agreement of 1993 (it concluded in 1993, but took seven years), has had a negative effect on weak developing countries such as Nigeria where the access to basic infrastructure is almost non-existent. There is an unequal technological strength among nations and this does not provide a fair level ground for competition, and has resulted in the weak technological nations being completely overridden by more advanced economies. In Nigeria, the ailing industries are collapsing on a daily basis because they do not have the strength to compete with the industries operating in a more efficient system where the infrastructure is working efficiently. Nnabuile et al., (2014) reported that the Nigerian economy is vulnerable to the pressures of imported goods that could otherwise be produced locally.

In Nigeria, the manufacturing sector, especially industries that require intensive use of electricity is worse off. For example, the cotton and textile industry were a key player in the national economy in the 1980s, providing 20 percent employment to the workforce in the country and having up to 170 textile mills in operation across the country. The industry generated an average of $8.95 billion, which amounted to 25 percent of the sector's GDP and accounted for up to 10 percent of corporate income taxes. It also provided a market for up to 1.3 million cotton growers in the cotton production belt of the country. However, after the WTO trade liberalisation came into effect, the number of textile factories in the country fell from over 175 in the mid-1990s to just 25 by 2010, representing an 85.71% drop. Employment also dropped, from 137,000 to 60,000 in 2002 and further to 24,000 by 2010 (Asaju, 2004; Makinde, 2006; Oloyede, 2014). The capacity utilisation dropped from 50.75% in 2003 to 20.14% in 2010. In 2012, the Minister of Trade and Industry in the country, Olusegun Agagu, revealed that the share of local textile output in the domestic market was just 12 percent.

Pack (1993) in his study 'Productivity and Industrial Development in the sub-Saharan Africa', found that the prevalent high domestic resources cost seriously reduced the competitive strength of sub-Saharan African countries.

4.3 LITERATURE REVIEW

There is a general consensus that MSMEs are important for both economic and social development in any economy, especially developing economies. From an economic perspective, MSMEs provide many benefits (Advani, 1997). MSMEs have been recognised as the engines through which the growth objectives of developing countries can be achieved (Abor & Biekpe, 2006). MSMEs are the main source of job and employment creation and output growth, not only in developing countries but also in developed countries (Tambunan, 2008). It is acknowledged in countries such as Australia,

Canada, France and Germany that MSMEs are an important engine of economic growth and technological progress (Thornburg, 1993).

There are three major paradigms of the strand on MSMEs output and economic growth: the classical theory, the flexible specialization thesis and lastly, the pro-SMEs policy thesis.

4.3.1 Classical theory

The classical theory is found in the seminal articles of Hoselitz (1959), Parker (1979) and Anderson (1982) among others. Hoselitz's (1959) study on industrialisation in Germany found that the early stage of industrial development in Germany was manufacturing outfits that were characterised by artisans and craftsmen in small production units. These artisans and craftsmen metamorphosed into large size enterprises with more modern technology, and the smaller and traditional units of production fizzled out. On this premise, Parker (1979) and Anderson (1982) developed a general growth phase topology on the size pattern of firms by region and over time in the less developed countries. It was believed that the enterprises in the developed countries had generally become large firms over time and that the less developed countries will witness such a growth pattern in due course. However, the current structure of enterprises in the developed countries shows that small businesses are still actually the engine of growth in those countries, as submitted by Thornburg (1993).

4.3.2 Flexible specialisation theory

The theory of flexible specialisation is a strategic mode of customised production of goods as against massed production. It is subject to incessant changes and is based on the flexible use of the factors of production such as multi-user equipment as well as specialised skilled and innovative workers in a post-industrial revolution era where competition only rewards innovation. This theory was pioneered by Piore and Sabel in their 1984 seminal work titled "The second industrial divide: possibilities for prosperity". They argued that, due to market saturation, declining productivity levels and a spike in market structural stability, there has been a paradigm shift from the Fordist mode of mass production to the non-Fordist. This was occasioned by the proliferation of flexible specialisation with customised forms of production such as craftsmanship, fashion and information technology, which is dominated mostly by small and medium scale enterprises. Examples of small businesses in craft-based industrial regions can be found in Silicon Valley and New York City's garments district, as well as other similar clusters in Italy, Japan, Germany and Austria.

The main crux of the flexible specialisation thesis vis-à-vis MSMEs is centred on the argument that MSMEs growth can favourably compete and even outperform large enterprises in certain sectors of the economy. This is especially true for firms in the Information and Communication Technology sector that rely heavily on changing innovation and efficiency. This view that small and younger firms grow more rapidly than large firms as they strive to accumulate sufficient resources to enable them

to withstand any external shocks has been substantiated by a number of studies (see Smallbone & North, 1995; Smallbone & Wyer, 2000; Heinonen, Pukkinen, & Nummela, 2004). It also enforces the views of Schumpeter (1942) who was one of the earliest scholars to emphasise the socio-economic importance of small firms as the prime agents of innovations and economic growth. This suggests that the importance of small businesses in any economy cannot be overemphasised.

4.3.3 Pro-SMEs policy thesis

Development institutions, as well as development finance practitioners, are the advocates of small businesses promotion. This is hinged on the premise that small businesses enhance competition and are the bedrock of entrepreneurship as well as innovation. They are a source of employment and income for a sizeable proportion of the population, and contribute significantly to output and economic growth in an economy (World Bank, 1994, 2002 and 2002).

4.3.4 Empirical literature review

Many studies have been done to determine the impact of MSMEs on output, in both developed and developing countries. Beck et al. (2003) provided the first robust cross-country analysis on SMEs and economic growth and found a positive relationship between SMEs' output growth and economic growth. Beck and Demirguc-Kunt explored the relationship between the relative sizes of small businesses and economic growth, as well as the impact of small businesses in poverty alleviation, and found a strong positive relationship between small businesses and economic growth, but no evidence of a causal link between small businesses and economic growth, and no evidence of small businesses alleviating poverty or reducing income inequality. This shows that small businesses have a positive impact on the economic growth and that economic development creates a natural place for development and growth of enterprises of all sizes and makes small businesses to flourish, there is a need to encourage economic development in all its ramifications. Tambunan (2008) in his work 'Micro, small and medium enterprises and economic growth', following from the work of Beck et al. (2003), also found a positive relationship between small businesses output growth and economic growth for seventeen selected Asian-Pacific countries. Huang (2010) analysis of 37 datasets of both developed and developing countries found that small businesses contribute to economic growth.

Most of the empirical studies in Nigeria were descriptive or inferential in nature and lack rigorous analysis due to data limitation. It is in this light that we are contributing to the empirical study on the relationship between MSMEs and output in the Nigerian economy.

4.4 DESCRIPTION OF THE DATA AND THE ESTIMATION TECHNIQUE

This study employed 2007, 2010 and 2014 World Bank Enterprise Survey data on Nigeria. The data is a stratified multi-stage random sample, comprising geographically enumerated areas and cutting across many sectors of the economy. The survey dataset after cleaning contains 952 enterprises for the year 2007 survey, of which 749 were small enterprises, 181 medium enterprises and 22 large

enterprises. The 2010 survey dataset contains 2,740 enterprises, of which 1,798 were small enterprises, 836 were medium enterprises and 106 were large enterprises. The 2014 survey dataset contains 1,306 enterprises after cleaning, comprising 128 micro, 717 small, 358 medium and 103 large enterprises. By the enterprise survey definition, which is along employment in the firms, micro enterprises employ less than 5 employees, small enterprises employ between 5 and 19 employees, medium enterprises employ between 20 and 99 employees, and large enterprises employ 100 or more employees.

This survey contains two-point output information for each enterprise surveyed. This gave us the opportunity to compare each firm size output for two periods. For the 2007 survey, we have information on each firm's output for 2006 and 2003. For the 2010 survey, there is information on each firm's output in 2008 and 2002, and finally, for 2014, we have information on each firm's output in 2009 and 2012. Any firm that did not provide information for the two-point period was dropped. This enabled the identification of the enterprises (micro, small, medium and large) that are more productive in the Nigerian economy.

As indicated earlier, output growth in MSMEs or any enterprise can be identified from three sources: the increase in the number of establishments (taking into consideration that the number of employees and output of the existing firms are held constant), the increase in the number of employees (with the number of firms and labour productivity held constant), and the increase in the output or productivity, which can be termed efficiency (holding constant the number of firms and employees in each firm), or the combination of the three factors. This study will basically be limited to the third source, increase in output or productivity of the firms, due to the nature of the data used.

Due to the nature of the data available, as well as the research intension (the extent to which MSMEs are contributing to the economic growth vis-à-vis large enterprises), we adopted a non-parametric variance analysis that uses the LOWESS method proposed by Cleveland (1979) and modified by Neumark et al. (2007).

Step 1: Let yi be the output growth rate of observation i (an establishment over a two-year period), xi the size of observation i measured using average size definition, and N the total number of observations. The standard implementation of locally-weighted mean smoothing would proceed as follows. Order the data such that xi ≤ xi-1 for all i = 1, …, N-1. For each yi, choose the subset of the data that is indexed by i- = max (1, i-k) through i- = min (i+k, N), where k= [(N.h – 0.5)/2] and h is the pre-specified bandwidth that indicates the proportion of the data used in the calculation of the smoothed value $\widehat{yi}$. Choose a function that assigns a weight wi to each observation j=i-, …, i-; observations outside of this range are given no weight. For example, one may choose a tri-cubic weight function (the kernel), in which case the smoothed value $\widehat{yi}$ is calculated as:

$\widehat{yi} = \frac{\sum_{j=i+}^{i+}(wj.yj)}{\sum_{j=i-}^{i+}(wj)}, wherewj = \left(1 - \left(\frac{\{xj-xi\}}{\Delta}\right)^3\right)^3$ and Δ = 1.0001*max (xi- - xi, xi - xi-). 4.1

Step 2: Given a repeated value for many observations, this first method is computationally infeasible. It would involve calculating the repeated weighted average. Instead, we utilise the following method where we first compute an average value y for each unique value of x and then calculate a smoothed value $\widehat{yi}$ from the reduced dataset.

We use the following procedure. First, order the data such that xi ≤ xi+1 for all I = 1, …, N-1. For each unique value of xi, create a zi = xi. Let the total number of z be M and order all of them such that zi< zi+1 for all I = 1, …, M-1. The, let $yi = \frac{\sum_{yi\in\widetilde{Yi}} yi}{C(\widetilde{Yi})}$ for all I = 1, …, M, where $\widetilde{Yi} = \{(yi, xi): (xi = zi)\}$ and C($\widetilde{Yi}$) is the cardinality of $\widetilde{Yi}$. Now apply the standard smoothing procedure to the observations (yi, zi), except that the weight function is adjusted using the frequency of yi. Again, using a tri-cubic weight function, this amounts to calculating the following smoothed value:

$\widehat{yi} = \frac{\sum_{j=i-}^{i+}(wj.yj)}{\sum_{j=i-}^{i+}(wj)}$ where wj = $C(\widetilde{Yi}).\left(1 - \left(\frac{\{xj-xi\}}{\Delta}\right)^3\right)^3$. 4.2

These two methods essentially use the same information in the data although they usually assign slightly different smoothed values to different observations. Whereas the standard method gives multiple predicted values for each zi in cases where there is multiple xi such that xi = zi, our method only returns one predicted value per unique value of x.

Non-parametric methods make fewer assumptions and this makes their applicability more acceptable and robust than the parametric methods. Another justification for non-parametric methods is its simplicity. It is easier to use non-parametric methods to parametric methods because of its robustness, and it leaves no room for improper use and misunderstanding. The essence of using non-parametric method here is not avoid any potential biases or loss of information introduced by using arbitrary size boundaries of firm sizes.

However, non-parametric methods have less power to parametric methods if the sample size is not large enough. With large sample size, a non-parametric method can draw the same degree of confidence has that of parametric methods.

4.5 DATA ANALYSIS

This result starts with the descriptive statistics for the three enterprise survey data points used. The 2007 dataset descriptive statistics summary will be presented first, followed by 2010, and finally that for 2014. For 2007 dataset, 2006 fiscal year output and 2003 fiscal year output were surveyed for large, medium and small enterprises. The datasets for 2007 and 2010 do not have provision for

microenterprises. For the 2010 dataset, 2008 and 2002 fiscal output were surveyed. Finally, for 2014, 2012 and 2009 fiscal output were surveyed.

Table 4.1: 2007 dataset descriptive statistics summary

	Large Firms		Medium Firms		Small Firms	
Indicators	**2006**	**2003**	**2006**	**2003**	**2006**	**2003**
Mean	7.85E+08	4.67E+08	5.59E+09	1.32E+10	2.42E+09	3.34E+09
Median	7900000	5500000	5000000	2800000	3500000	2000000
Maximum	7.00E+09	6.23E+09	3.50E+11	1.00E+12	4.00E+11	6.73E+11
Minimum	70000	100000	20000	15000	2011	2013
Std. Dev.	1.97E+09	1.37E+09	3.54E+10	9.12E+10	2.42E+10	3.31E+10
Skewness	2.456927	3.63191	7.587181	8.807118	13.45286	14.52027
Kurtosis	7.45904	15.5064	64.0309	86.933	199.1812	253.586
Jarque-Bera	40.35993	191.7419	29827.53	55469.03	1223710	1985995
Probability	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Sum	1.73E+10	1.03E+10	1.01E+12	2.39E+12	1.81E+12	2.50E+12
Sum Sq. Dev.	8.18E+19	3.96E+19	2.26E+23	1.50E+24	4.37E+23	8.20E+23
Observations	**22**	**22**	**181**	**181**	**749**	**749**

Source: Computed by the Author

Table 4.2: 2010 dataset descriptive statistics summary

	Large Firms		Medium Firms		Small Firms	
Indicators	**2008**	**2002**	**2008**	**2002**	**2008**	**2002**
Mean	2.43E+09	1.93E+07	7.16E+07	5.11E+07	16019299	1.08E+08
Median	4.87E+08	8000000	28002000	6000000	6000000	8637700
Maximum	3.20E+10	4.26E+08	4.68E+09	9.10E+09	3.85E+09	1.90E+10
Minimum	35500000	1400000	2200000	180000	170000	30000
Std. Dev.	5.41E+09	5.12E+07	2.08E+08	4.13E+08	95751067	8.68E+08
Skewness	3.479888	6.742702	14.31771	16.26742	36.10583	15.56496
Kurtosis	15.52473	49.80788	293.6297	312.2994	1433.48	272.6897
Jarque-Bera	906.774	10480.02	2970781	3369242	1.54E+08	5521477
Probability	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Sum	2.58E+11	2.04E+09	5.99E+10	4.27E+10	2.88E+10	1.94E+11
Sum Sq. Dev.	3.07E+21	2.75E+17	3.62E+19	1.42E+20	1.65E+19	1.35E+21
Observations	**106**	**106**	**836**	**836**	**1798**	**1798**

Source: Computed by the Author

Table 4.3: 2014 dataset descriptive statistics summary

	Large Firms		Medium Firms		Small Firms		Micro Firms	
Indicators	**2012**	**2009**	**2012**	**2009**	**2012**	**2009**	**2012**	**2009**
Mean	3.88E+10	1.73E+07	2.00E+09	4.47E+07	4.24E+08	3.96E+09	19338651	30590141
Median	55000000	1.90E+06	4000000	3000000	1250000	5000000	900000	1900000
Maximum	1.00E+12	6.42E+08	2.75E+11	3.00E+09	2.75E+11	4.00E+11	9.01E+08	2.60E+09
Minimum	450000	3000	70000	20000	1000	20000	40000	5000
Std. Dev.	1.40E+11	6.70E+07	1.91E+10	2.39E+08	1.03E+10	3.04E+10	1.02E+08	2.34E+08
Skewness	4.910346	8.202764	11.2657	9.348262	26.65738	10.02847	7.480065	10.54741
Kurtosis	28.97615	75.44322	140.4898	100.04	712.6994	111.8959	59.99643	115.7505
Jarque-Bera	3309.761	23677.82	289548.9	145680.9	15132157	366285.1	18519.46	70174.21
Probability	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Sum	4.00E+12	1.79E+09	7.14E+11	1.60E+10	3.04E+11	2.84E+12	2.48E+09	3.92E+09
Sum Sq. Dev.	2.00E+24	4.58E+17	1.30E+23	2.04E+19	7.56E+22	6.62E+23	1.32E+18	6.95E+18
Observations	**103**	**103**	**358**	**358**	**717**	**717**	**128**	**128**

Source: Computed by the Author

4.6 RESULTS

The results of the analysis show a consistent negative productivity growth rate for small businesses throughout the analyses of the annual fiscal sales. Whilst the result of the analysis of the annual fiscal sales obtained from the 2007 survey shows a sharp fall in the output productivity growth rates of 27.35% and 57.76% for small and medium-scale enterprises respectively between 2006 and 2003, the reverse is the case for large firms as they recorded a positive productivity growth rate of 147.05% during the same period. For the 2010 survey data analysis, it was only small firms that had a negative output growth rate of 27.36%, between 2008 and 2002, while medium and large enterprises recorded positive output growth rates of 40.13% and 12,531.81% respectively. Similarly, the 2014 data shows that micro and small firms recorded negative growth rates of 36.78% and 89.29% respectively between 2012 and 2009, while medium and large firms recorded positive growth of 4,363.33% and 223,750.97% respectively. This result clearly demonstrates that small businesses in Nigeria have a low productivity rate. This is in tandem with the findings of IFC (2013b) that microenterprise firms have the least productivity growth rate amongst firms of all sizes.

Table 4.4: 2007 Dataset analysis

INDICATORS		2006	2003	difference	Percentage difference
		y = 2006	x = 2003	r = y – x	p = (r/x)100
FIRM SIZE	Small	1.81482E+12	2.49846E+12	-6.8365E+11	-27.36
	Medium	1.01098E+12	2.39368E+12	-1.3827E+12	-57.76
	Large	17264200000	10276044000	6988156000	68.00

Source: Computed by the Author

Table 4.5: 2010 Dataset analysis

INDICATORS		2008	2002	Difference	Percentage difference
		Y = 2008	X = 2002	R = Y – X	P = (R/X)100
FIRM SIZE	Small	28802699353	1.94013E+11	-1.6521E+11	-85.15
	Medium	59869445541	42723808600	17145636941	40.13
	Large	2.57752E+11	2040500000	2.55712E+11	12531.81

Source: Computed by the Author

Table 4.6: 2014 Dataset analysis

INDICATORS		2012	2009	Difference	Percentage difference
		Y = 2012	X = 2009	R = Y – X	P = (R/X)100
FIRM SIZE	Micro	2475347350	3915538000	-1440190650	-36.78
	Small	3.04021E+11	2.83768E+12	-2.5337E+12	-89.29
	Medium	7.14223E+11	16002022800	6.98221E+11	4363.33
	Large	3.99639E+12	1785291900	3.99461E+12	223750.97

Source: Computed by the Author

We further did a robust analysis of the 2014 survey dataset by disaggregating the data into subsectors to determine sectoral productivity levels. We found that micro firms in the garments subsector are the most productive as they show a positive output growth rate of 6,696.95%. The next productive subsector for micro enterprises is hotel and restaurants with an output growth rate of 547.37%. This is followed by the furniture subsector that recorded an output growth rate of 539.38%. This confirms the flexible specialisation theory that advocates that one of the reasons for the continuous existence of small businesses was because of customers' choice of customised forms of production. The least productive subsector for micro enterprises is the electronics industry, which recorded a negative 95.83% output growth rate.

For small firms, the most productive industry is the wholesale trade subsector that witnessed an increase in output growth rate to the tune of 2,433.11%, this clearly demonstrates the wholesale

subsector to be the best space for small firms. The garment and textile industries are the next most productive subsectors for small enterprises in Nigeria. The garment industries recorded an output growth rate of 240.9% and the textile subsector experienced a growth rate of 229.24%. However, both the information technology (IT) and the machinery and equipment subsectors witnessed a sharp decline in output growth rate, showing a 100% and 99.99% drop respectively. The decline witnessed in these sectors could be the effect of competition on small firms due to the huge capital outlay required to compete favourably in these industries.

For the medium firms, the most productive subsector is the fabricated metal products industry that witnessed an increase in output growth rate to the tune of 104,026.42%. The hotel and restaurants industry are the next most productive subsectors for medium-scale enterprises in Nigeria. The hotel and restaurant industry recorded an output growth rate of 43,644.71%, while the furniture subsector experienced a growth rate of 8,156.24%. However, the chemicals, transport and plastic and rubber subsectors all witnessed a sharp decline in output growth rates of 97.37%, 91.80%, and 78.93% respectively. With the results obtained, we have been able to properly classify the heterogeneous MSMEs into diverse segmentations for any targeted interventions such as income stabilisation policy, employment creation, productivity increase, etc.

Table 4.7: 2014 Subsector analysis for micro firms

SECTOR		MICRO			
	SUB-SECTOR	**Y = 2013**	**X = 2010**	**R = Y - X**	**P = (R/X)100**
MANUFACTURING	Food	1050000	3270000	-2220000	-67.89
	Textiles	3640000	2151000	1489000	69.22
	Garments	9.34E+08	13748000	9.21E+08	6696.95
	Chemicals	-	-	-	-
	Plastic & Rubbers	-	-	-	-
	Non-Metal Mineral Products	63600000	25970000	37630000	144.90
	Basic Metals	1250000	700000	550000	78.57
	Fabricated Metal Products	31392000	70600000	-3.9E+07	-55.54
	Machinery & Equipment	300000	350000	-50000	-14.29
	Electronics	500000	12000000	-1.2E+07	-95.83
	Furniture	2.13E+08	33345000	1.8E+08	539.38
SERVICES	Wholesale	55280000	53050000	2230000	4.20
	Retail	8.81E+08	2.77E+09	-1.9E+09	-68.22
	IT	1740000	2800000	-1060000	-37.86
	Hotel & Restaurants	1.65E+08	25500000	1.4E+08	547.37
	Other Services	10350000	2.17E+08	-2.1E+08	-95.23
OTHERS	Construction	100000	120000	-20000	-16.67
	Transport	6580000	15870000	-9290000	-58.54

Source: Computed by the Author

Table 4.8: 2014 Subsector analysis for small firms

SECTOR		SMALL			
	SUB-SECTOR	Y = 2013	X = 2010	R = Y – X	P = (R/X)100
MANUFACTURING	Food	7.53E+08	1.42E+12	-1.4E+12	-99.95
	Textiles	3.1E+09	9.42E+08	2.16E+09	229.24
	Garments	1.12E+10	3.29E+09	7.93E+09	240.97
	Chemicals	8300000	1.1E+09	-1.1E+09	-99.25
	Plastic & Rubbers	30050000	2.18E+11	-2.2E+11	-99.99
	Non-Metal Mineral Products	6.63E+08	1.31E+11	-1.3E+11	-99.50
	Basic Metals	830000	3.6E+08	-3.6E+08	-99.77
	Fabricated Metal Products	3.62E+08	1.47E+09	-1.1E+09	-75.32
	Machinery & Equipment	1500000	1E+10	-1E+10	-99.99
	Electronics	2.2E+08	46700000	1.73E+08	370.02
	Furniture	5.18E+08	2.81E+10	-2.8E+10	-98.16
SERVICES	Wholesale	2.76E+11	1.09E+10	2.65E+11	2433.11
	Retail	3.08E+09	5.88E+09	-2.8E+09	-47.66
	IT	11790000	2.45E+11	-2.5E+11	-100.00
	Hotel & Restaurants	2.11E+09	3.2E+10	-3E+10	-93.39
	Other Services	2.36E+09	3.77E+10	-3.5E+10	-93.74
OTHERS	Construction	90450000	7.1E+10	-7.1E+10	-99.87
	Transport	1.9E+08	1.13E+10	-1.1E+10	-98.32

Source: Computed by the Author

Table 4.9: 2014 Subsector analysis for medium firms

SECTOR	SUB-SECTOR	MEDIUM			
		Y = 2013	X = 2010	R = Y – X	P = (R/X)100
MANUFACTURING	Food	1.58E+09	2.25E+09	-6.8E+08	-30.10
	Textiles	2.01E+09	3.12E+08	1.7E+09	545.80
	Garments	1.27E+09	46550000	1.22E+09	2619.14
	Chemicals	11400000	4.33E+08	-4.2E+08	-97.37
	Plastic & Rubbers	4340000	20600000	-1.6E+07	-78.93
	Non-Metal Mineral Products	5.88E+09	4.65E+08	5.41E+09	1163.73
	Basic Metals	2.06E+08	33920000	1.72E+08	506.87
	Fabricated Metal Products	1.01E+11	97105000	1.01E+11	104026.42
	Machinery & Equipment	3500000	1450000	2050000	141.38
	Electronics	7000000	4000000	3000000	75.00
	Furniture	1.41E+11	1.71E+09	1.4E+11	8156.24
SERVICES	Wholesale	9.53E+08	2.93E+08	6.6E+08	225.24
	Retail	1.79E+10	1.09E+09	1.68E+10	1543.98
	IT	10300000	16100000	-5800000	-36.02
	Hotel & Restaurants	2.75E+11	6.29E+08	2.75E+11	43644.71
	Other Services	2.37E+09	3.86E+09	-1.5E+09	-38.55
OTHERS	Construction	8.95E+08	1.78E+09	-8.8E+08	-49.59
	Transport	2.17E+08	2.64E+09	-2.4E+09	-91.80

Source: Computed by the Author

4.7 CONCLUSION AND RECOMMENDATION

This research used three World Bank enterprise survey data for Nigeria to examine the extent of MSMEs' output contribution to productivity growth rate in the Nigerian economy. The study also explored the factors that constrain MSMES output shares, output composition, market orientation and location in Nigeria. Some of the factors identified include a huge infrastructural gap, inadequate institutional support and low access to credit. The resultant effect is a low investment commitment amongst MSMEs, thus hampering the output expansion of small businesses in Nigerian.

This study empirically measured MSMEs productivity growth rate using annual sales of firms from the World Bank enterprise survey data for Nigeria. This research employs the non-parametric variance estimation using the LOWESS method on three sets of two-points data (2006 and 2003, 2008 and 2002, and finally 2012 and 2009) of annual fiscal sales for each category of firm (micro, small, medium and large firms). The results show that small businesses have a negative productivity growth rate in Nigeria. The result is in line with IFC (2013b) which found small businesses to have the least productivity growth rate amongst firms of all sizes. However, this study departs from IFC

findings which states that small businesses' low productivity is tenable across all the sectors of the economy. We found that small businesses actually recorded high productivity growth rates in some subsectors of the economy that specialises in product customisation such as garments and furniture. Therefore, this study validates the flexible specialisation theory of Piore and Sabel (1984) that emphasises the economic importance of MSMEs in the post-industrial era where product customisation is the new order of production.

The policy implication of this study is that any targeted intervention in the MSMEs sector designed to increase productivity must be channelled towards the subsector with the most employee specialisation and product customisation. Also, drawing from a synthesis of the flexible specialisation theory and Pro-SME policy thesis, MSME production hubs similar to what is done in Silicon Valley and New York's garment district should be encouraged as this can help spur MSME output because it prompts easy knowledge transfer and skill adaptation.

CHAPTER FIVE
MSMEs AND TRANSACTION COSTS OF CREDIT

5.0 INTRODUCTION

Transaction cost is the cost that both lenders and borrowers have to bear in order for the exchange of credit to take place. It is a cost that can prevent the credit market from operating efficiently or prevent the market from taking place. It is also an established fact that the market only takes place whenever an intermediary finds a buyer for a price, which is expected to cover all costs of production, including direct and opportunity costs (Benston and Smith, 1976). As it affects the lender, transaction costs involve the costs of information gathering, loan administration, enforcement and loan approval, while for the borrower it involves all direct and indirect cost beyond the cost of capital (i.e. the interest rate), including application fees, service fees, cost of the passport photograph, transportation costs, travel time spent in obtaining the loan, cost of phone calls, processing duration, etc. (Cuevas & Douglas, 1985).

The higher the transaction costs, the higher the cost of intermediation and the lower the credit facilities (Fachini et al., 2008). It has been observed that transaction costs in developing countries far exceed those in developed economies (Igwe & Egbuson, 2013). This is the major reason why the constraints on access to finance are more pronounced in developing countries.

The growth of MSMEs depends on their ability to overcome the credit constraints and develop their potential in the physical and human capital. Investing in capital requires greater access to finance. Ogujiuba et al. (2004) also noted that lack of adequate and timely access to finance is a key obstacle to the growth and profitability of MSMEs in developing countries. The absence of efficiently operating rural financial markets is a serious constraint on sustainable rural MSME development in the developing countries. Financial access by MSMEs increase income through productive investment and help to create employment opportunities through an increase in MSME activities (Isern et al., 2009).

In accessing finance, the most preferred external source of finance for MSMEs is the debt financing option as explained by the pecking order theory (Myers & Majluf, 1984) because of the ownership independence, tax holiday and other characteristics it offers. Commercial banks offer the highest chunk of debt finance in an economy (Abe et al., 2012). Bank lending to MSMEs is not without challenges. High transaction and administrative costs stemming from problems of asymmetric information and high-risk perception, and lack of collateral remain major constraints of MSMEs' access to appropriate debt financing. Observations from the angle of financial institutions show that transaction costs (such as credit assessment, processing, servicing and monitoring) are usually above average for MSMEs because of the small loan size. Another factor detected is risk: MSMEs are perceived to be more prone to default on loan repayment and less likely to have appropriate

collateral. These issues are reinforced by the high level of information asymmetries concerning the financial operations of MSMEs. Lack of a proper residential address system, weak institutional capacity for property registration and contract enforcement curtail commercial banks from extending credit facilities to MSMEs.

The purpose of this study has been to investigate the transaction costs of obtaining credit from the perception of both the lenders (the commercial banks and MFIs) and the borrowers (the MSMEs), with the aim to identify the aspect of transaction costs that actually pose the constraint to MSMEs access to credit.

From the literature, it is observed that only a study by Olomola (1999) majorly examined the determinant of transaction costs of credit in Nigeria, and this was for non-bank institutions. The financial situation in the country has changed since this study and there is a need for a new empirical investigation into the impact of transaction costs in the credit market. This study will take into consideration all sectors of the economy for MSMEs and not just the agricultural sector which was Olomola's main focus. A quantitative research design was used in this study. Data were gathered using survey data from 427 MSMEs respondents and 15 commercial banks, employing regression analysis methods.

5.1 LITERATURE REVIEW

There are two broad categories of transaction costs in the literature, proportional and fixed transaction costs. Coase (1960) identified the presence of transactions cost associated with information, negotiation, monitoring, coordination and enforcement of contracts to be the factor which led to the emergence of intermediary firms. Others have grouped transaction costs into tangible (transport costs, communication costs and legal costs etc.) and intangible (uncertainty, moral hazard, opportunity cost of time etc) costs (Cuevas & Graham, 1986; Holloway, Barrott & Ehui, 2005; Birthal, Joshi & Gulati, 2005). This transaction costs affect all forms of enterprises but disproportionately. Pandula (2011) identifies three reasons why it affects small businesses more, to be: the firm's characteristics, the financial characteristics and the entrepreneur characteristics. The firm characteristics that affect MSMEs ability to access bank credit are but not limited to, firm size, firm age and firm's ownership structure. The financial institution characteristics include interest rate, proximity to the market, and efficiencies, especially in the area of decision lag. The entrepreneur characteristics that impede MSMEs access to credit include entrepreneur's level of education, experience and training, and entrepreneur's network and training (Aliero & Yusuf, 2017). Therefore, there is the need to discuss the established factors that can hinder access to credit for MSMEs:

5.1.1 Firm size

There are several theoretical reasons why a firm size is a determinant of a firm's access to finance. First, smaller firms may find it relatively costly to resolve informational asymmetries with lenders and

financiers, since they will have little or no collateral in terms of hard assets. Consequently, smaller firms will have access to less capital from financial institutions or are offered capital at significantly higher interest rate than larger firms, which daunts the use of outside financing.

The transactions cost associated with financing may also affect financing choices as most of the transaction costs component are fixed and not a variable, this will make financing of smaller firms to have higher transaction costs, compare to large firms (Titman & Wessels, 1988).

Another point of note with the firm size is the amount of collateral that the firm can pledge. Storey (1994) stated that bank financing of SMEs will depend on whether the lending can be secured by collateral or not. Which means that firms with less tangible assets are likely to have less asset to pledge and less access to credit, compared with firms with more tangible assets.

5.1.2 Age of the firm

The age of a firm is a standard measure of reputation for access to credit. From the life-cycle perspective, as a firm ages, more information about the firm become easily available and it therefore increases its chance to have access to more debt; hence age is positively related to finance. Berger and Udell (1995) found that smaller and younger firms are more likely to face higher costs of financing and are required to pledge higher collateral because of their opacity. Being in business for many years suggests that the firm on average is competitive. Information that financial institutions require to evaluate and process loan applications become more available with older firms than newer ones.

5.1.3 Firm's ownership structure

The legal status of an MSME is another factor that determines access to credit. Banks tend to give preference to firms that are legally recognised by the relevant authorities. MSMEs that are incorporated are more likely to be less credit-constrained than those that are not. For example, Storey (1994) found that legal status influences bank lending. He further stated that corporate status at start-up appears to be associated with a greater likelihood for bank lending.

5.1.4 Interest rate

Following from the law of demand and supply, the higher the interest rate, the lower the level of intermediation. Mensah (2004) reported that MSMEs have less debt financing because of high interest rates charged by financial institutions. Similarly, Binks and Ennew (1996) mentioned interest rates as one of the major problems preventing MSMEs from accessing credit.

5.1.5 Level of education of the entrepreneur

The higher the level of education of an entrepreneur, the easier it is to process information and adapt to the changing business world. Literature has found the level of education to be directly related to access to credit. Sanusi (2010) identifies ignorance and lack of requisite knowledge as some of the

challenges facing manpower in Nigeria. Ferreira et al. (2009) found a positive correlation between access to credit and household level of education.

5.1.6 Entrepreneur's managerial training

Lack of familiarisation with the loan process is a cost that increases transaction costs. Entrepreneurs need training on loan procedures and modalities to ease the cost associated with debt financing. Dogondaji (2006) argue that lack of familiarisation with legal authority requirement and bank loan procedures are some of the problems that threaten the growth of SMEs and access to credit. Carbo-Valverde, Rodriguez-Fernandez, & Udell, (2005) submitted that the major reason for SMEs credit constraints is the inability of the SMEs to furnish banks with the required information that will assist to assess their creditworthiness and determine the risk involved in extending credit to them.

5.2 MODEL SPECIFICATIONS

The models investigate problems with access to credit for MSMEs in Nigeria by looking at the impact of transaction costs in accessing credit from commercial banks and MFIs. It also takes into consideration the MSMEs characteristics, the macroeconomic environment in Nigeria and the lending policies of commercial banks.

5.3 MODELLING THE DETERMINANTS OF TRANSACTION COSTS

The determination of the transactional cost of both borrowers and lenders is in two stages. The first stage looks at the borrower's transaction costs and the second looks at the lender's transaction costs independently.

It is imperative to examine the true transaction costs on the demand side because a borrower's demand for credit will depend on his/her ability to obtain the credit at a minimum transaction cost (Olomola, 1999). Our work follows from the works of Masuko and Marufu (2003) and Fachini et al. (2008), where transaction-costs equation is specified as a function of all elements in the loan contract (interest rate, collateral, loan amount) and a vector of risk-related characteristics of the borrower and/or the investments assumed to be associated with the loan. This study examines borrowers' transaction costs on:

(1) Borrowing experience (if the borrower has ever borrowed money before from any loan office and in particular from the same loan office which will assume 1, otherwise 0).
(2) Decision lag (when the loan application was submitted and when the loan was actually approved or rejected, in days).
(3) The size of firm or loan (the assumption here is that small firms usually apply for small loans which range between 1 and 3 for micro, small and medium enterprises respectively, or alternatively, the number of permanent employees).
(4) The borrower's distance to the loan office (this looks at the cost of travelling, feeding, phoning and accommodation during the process of the loan).

(5) Documentation (application fees, service fees, cost of photography and photocopies).

(6) The opportunity cost of time to the borrower (by this, we tried to quantify the time spent using the monetary unit: we used the average income the borrower is supposed to earn during the time period spent on the loan application).

TC = f(Borrowing experience, Decision lag, Firm size, Distance, Documentation, Opportunity cost of time)

On the lender's side, the transactions cost indices employed is adopted from the research work of Fachini et al. (2008). This is presented in Table 5.1.

Table 5.1: Lenders' transaction cost indices

Active portfolio efficiency	(Transaction cost/Active portfolio) * 100
Portfolio Profitability	(Operating revenues – Financial investment revenues) / Active portfolio * 100
Cost per Borrower	Transaction costs/number of active clients
Team productivity (units)	Total number of active clients/number of employees (staff in the credit unit)

Source: Fachini et al., 2008

Active portfolio efficiency is the lender's transaction costs which was modelled on portfolio profitability, cost per borrower and team productivity. Portfolio profitability measures how much interest and fine payment per loan unit received for a given period. The cost per borrower shows the average cost to provide a loan to each client of the bank, and the team productivity, which evaluates the efficiency of the staff in the credit unit both in the administration of the loan portfolios and in attracting new clients to the bank.

TC = f(Active portfolio efficiency, Portfolio profitability, Cost per borrower, Team productivity)

5.4 SOURCES AND METHODS OF DATA COLLECTION

This research analysis collects information from two sources: primary data from surveys of both MSMEs and banking institutions, and secondary data source from the financial year book of each individual banking institution. The modality employed to collect data for this research work will be discussed hereafter. Methods of collecting the primary data are discussed first, and the sources and types of the secondary data for the analysis follows.

5.4.1 Primary data using survey method

5.4.1.1 Study area and the target population

The study was conducted in the urban and sub-urban area of Lagos State, Nigeria. Lagos state lies on the coordinate 6^0 35' 0` N, $3^0$ 45' 0` E, with a total land area of 3,577km^2 (1,381 sq. mi), and a population estimate of 21 million (NPS, 2012). Lagos state comprises five main divisions: Lagos

Island, Ikeja (the capital city), Badagry, Ikorodu and Epe, and is administratively divided into 20 local governments (Appendix A). Lagos state was selected for the research because it is one of the major commercial cities[5] and the financial hub of the country[6]. The targeted population of the study is the various types of MSMEs covering manufacturing, trading, services, and agriculture. Primary and secondary data were collected on financial institutions (basically commercial banks and MFIs) that extend credit to small businesses in the country.

Figure 5.1: LGAs in Lagos Metropolitan

Source: Google Maps.

Two surveys were conducted covering the borrowers (MSMEs) and the lenders (financial institutions) in the study area (Lagos state). The primary data was a non-experimental research design. This study employed a triangulated method to generate both qualitative and quantitative data, using a cross-sectional survey, in-depth interviews and a case study. The cross-sectional survey method was used to generate quantitative data; in-depth interviews elicited qualitative data from relevant stakeholders (commercial banks, microfinance banks, ministries and relevant agency bodies), while the case study was used to obtain information on the life history of firms whose enterprises have a life span of over ten years, concerning access to finance. The choice of a triangular methodological standpoint became imperative in recognition of the need to capture the maximum information possible that would be unbiased and comprehensive.

The first stage of the survey that involved the MSMEs was carried out using multi-stage stratified random sampling to select the sample from the targeted population of MSMEs which was stratified

[5] It is referred to as the economic nerve of the country in which 35% of MSMEs are situated, and 65% of the commercial activities in the country take place in Lagos state (NBS & SMEDAN, 2010 and 2013).

[6] The majority (19 out of 21) of commercial banks in the country have their head offices in Lagos state, the remaining two (Jaiz Bank Plc and Unity Bank Plc) have their head offices in the Federal Capital Territory (FCT), Abuja.

by attributes such as location of the firm (it is relevant to determine the key access and proximity factor as well as ensuring that the survey represents the population well), the sector of the enterprise (manufacturing, services, trade and agriculture), and the size of the enterprise (micro, small and medium enterprises).

Stage 1: involves using the five divisional areas in the state (Lagos Island, Ikeja, Badagry, Ikorodu and Epe).

Stage 2: each sub-group was further stratified by type of business (manufacturing, trade, services, and agriculture) being another key determinant in the analysis to ensure that the analysis is comprehensive and all-encompassing.

Stage 3: MSMEs within each locality and business type substrata were further divided by size of the firm (micro, small and medium) using the number of permanent employees as the yardstick for classification: firms with between 0 and 5 employees were termed micro, those with between 6 and 20 employees were labelled small and those with between 21 and 100 were labelled medium.

To adequately represent these groups, a sub-sample was selected from each location-business type-firm size group. Variable sample fractions were used to allocate the total sample between these strata depending on availability of an appropriate, adequate and up-to-date sampling frame. The selection was then performed in stages. In stage one, the sample size in each of the five localities was selected. In the second stage, the sample size in each locality was further divided into micro, small and medium firms, using snowball sampling techniques (snowball sampling method was adopted to bridge the trust gap). Finally, in each locality and within firm sizes, we ensured that different business types (Manufacturing, Agriculture, Services, and Trade) were well represented.

Primary and secondary data were also collected from commercial banks and MFIs in Lagos state. There are 22 commercial banks, two merchant banks, one discount house and over 100 MFIs in Lagos state. For the analysis on financial institutions, we focused on 16 commercial banks and one MFI who published their financial year book.

5.4.1.2 Calculation of the sample size

The following are the steps used in identifying the sample size used for this analysis.

Step 1: Sample size calculation

The appropriate sample size for a population-based survey is majorly determined by three factors: (i) the estimated prevalence of the variable of interest – Population in this instance, (ii) the desired level of confidence, and (iii) the acceptable margin of error.

For a survey design based on a simple random sample, the sample size required can be calculated using Yamane's (1973) formula:

$$n = \frac{N}{1+N(e)^2} \quad 5.1$$

Where

n is the required sample size; N stands for the population of MSMEs in Lagos which according to NBS & SMEDAN (2014) survey is 3,235,987 enterprises of which 3,224,324 were micro, 11,044 were small, and 619 were medium. 'e' stands for the degree of freedom, which in this case was 5%.

This yielded a simple random sample size of:

$$n = \frac{3235987}{1 + 3235987(0.05)^2} = 399.95$$

Step 2: Nonresponse

In surveys, it is expected that some of the samples to be surveyed will not respond. It is common practice to cater for such expected nonresponse by applying a built-in factor in the sample size using a statistical model. The nonresponse built-in factor is usually estimated either from previous surveys of a similar nature or from the response to the pilot survey. For this research, we employed the response to the pilot survey which yielded a nonresponse rate of approximately 20%.

$$n = \frac{3235987}{1 + 3235987(0.0025)^2} * 1.2 = 479.94$$

This sample size of 480 was therefore the proposed sample size for this survey. It was proportionately allocated to the 80 strata as described below (Table 5.2).

For sample allocation purposes and to avoid sample misrepresentation, sampling fractions were done using the enterprise's density in each of the five administrative stratifications of the state. The weighted average for each substratum was computed by dividing the number of MSMEs in each substratum by the total population of MSMEs in Lagos state. The weight factors (sampling fractions) in each division were then multiplied by the total sampling size to determine the sample size for each stratum.

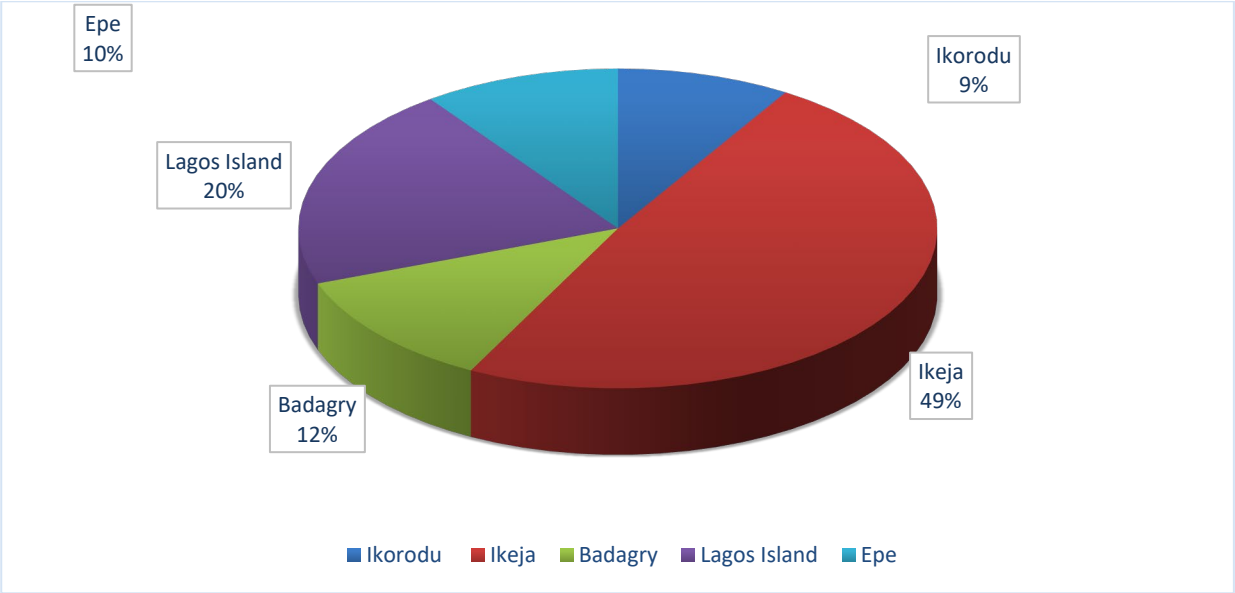
Table 5.2 shows the distribution of MSMEs sampled in each of the five administrative areas of Lagos state and the distribution of the enterprises according to their size and sectors in each area.

Table 5.2: Sample distribution of MSMEs by strata

Region	Sector	ENTERPRISE TYPE			
		Micro	**Small**	**Medium**	**Total**
Ikorodu	Manufacturing	10	6	0	16
	Agriculture	5	3	0	8
	Trade	7	3	0	10
	Services	5	3	2	10
	Total	**27**	**15**	**2**	**44**
Ikeja	Manufacturing	49	26	10	85
	Agriculture	7	5	0	12
	Trade	40	19	8	67
	Services	43	24	13	80
	Total	**139**	**74**	**31**	**244**
Badagry	Manufacturing	12	7	3	22
	Agriculture	3	2	1	6
	Trade	9	5	3	17
	Services	8	4	2	14
	Total	**32**	**18**	**9**	**59**
Lagos Island	Manufacturing	20	10	6	36
	Agriculture	0	0	0	0
	Trade	20	10	6	36
	Services	15	10	6	31
	Total	**55**	**30**	**18**	**103**
Epe	Manufacturing	11	6	4	21
	Agriculture	3	2	0	5
	Trade	8	3	1	12
	Services	8	3	1	12
	Total	**30**	**14**	**6**	**50**

Source: Computed by the Authors

Figure 5.2: Distribution of MSMEs according to the five administrative areas



Source: Computed by the Authors

5.5 SURVEY INSTRUMENTS AND DATA COLLECTED ON VARIABLES OF INTEREST

Data for MSMEs were collected using a structured questionnaire (see the structured questionnaire in Appendix B). The questionnaires used were first pretested in a pilot survey to check the validity of the questions, and suitability of the unit of measurement, as well as the order of the questions, an estimate of the length of interview time, and the best time for survey visit. We also identified major sources of non-random errors and the percentages of non-responsiveness. Based on the results of the pilot surveyed, the main survey plans and schedules of the field work were developed and implemented by the enumerators through direct interviewing of selected and willing respondents. The enumerators used were professional researchers working directly with collecting primary data from field and this makes the training easier. The survey of MSMEs was carried out during the month of November and December 2016, by five enumerators, one for each administrative area. In the end, the enumerators were able to obtain 427 adjudged valid responses in the five-administrative regions of Lagos state.

The survey for banks was carried out simultaneously during the period of November and December 2017 by the researcher. The survey covered the 19 commercial banks that have their head offices in Lagos. The questionnaires were distributed to the banks to be filled by the bank officials in the credit unit of the banks. At the end of the entire exercise, only 12 banks returned the filled questionnaires but the information needed was not elicited.

5.6 SOCIOECONOMIC CHARACTERISTICS OF MSMES AND THE BORROWING TRANSACTION COSTS

5.6.1 Attributes of MSMES in Lagos State

This section presents the socio-demographic and economic characteristics of the MSMEs and the triangulation and cross tabulation of these socioeconomic characteristics with the borrowing transactions cost attributes of the MSMEs in the Lagos state of Nigeria. This section also identifies those characteristics that have significant correlation the borrowing behaviour and attitudes of the MSMEs in the sample area.

Based on the sample size formula discussed in chapter 5 and given the size of MSMEs in Lagos state, the minimum number of MSMEs that should be sampled is 400 and in order to give room for non-response and invalid response, five hundred questionnaires were distributed as against 480 prescribed by the formula used. Efforts were made to retrieve all the questionnaires but after collation and scrutiny of the responses, not all the questionnaires were found admissible for analysis.

Out of the 500 questionnaires, only 427 (85.4%) were adjudged correctly filled with consistent valid responses. The retrieved responses, and adjudge correctly filled, based on the five administrative districts of Lagos is presented in Table 5.3. It shows the MSMEs population, the number of questionnaires distributed, questionnaires retrieved and the percentage response. Ikorodu (44), Ikeja (227), Badagry (31), Lagos Island (95), and Epe (20), with 100%, 93%, 53%, 92% and 60% response respectively. The overall response rate (85.4%) is considered consistent with response rates of other similar studies in Lagos state such as Oke (2005), and Bowale & Akinlo (2012) with both response rates of approximately 70%.

Table 5.3: Sample distribution of MSMEs by Strata

	MSMEs Population	Questionnaire Distributed	Questionnaire Retrieved	Percentage Response
Ikorodu	282,765	44	44	100
Ikeja	1,576,516	244	227	93
Badagry	381,585	59	31	53
Lagos island	670,232	103	95	92
Epe	325,889	50	30	60
Total	**3,235,987**	**500**	**427**	**85.4**

Source: Computed by the Authors from the Field Survey, 2017

5.6.2 Analysis of socio-demographic characteristics of MSMEs respondents

Table 5.4 shows the distribution of the respondents according to age and educational attainment. The distribution of the MSMEs by the age of the respondents shows that the bulk (91.5%) of owners of the MSMEs in Lagos state are within the 21 to 50 age bracket which implies they are in their active years. Specifically, about 30.1 percent of the respondents were between the ages of 21 and 30 years while 37.4 percent were in their 30s. A substantial proportion (24.1%) of the respondents also fall between the ages of 40 and 50years while less than 8 percent are people older than 50 years, and 12 respondents refused to disclose their age

The distribution of education attainment of the respondents showed that majority of the respondents were literate and well educated, although more than 50% (246) did not answer the question. Of the respondents, only 1.2 percent did not complete secondary education, 5.1 percent of the respondents have never been to university. Less than 2 percent have not completed their university education. 7.5 percent of the respondents were university graduates, 4.4 percent are undergoing a post-graduate degree program, 24.1% have completed their post-graduate degree. This implies that quite a sizeable number of business owners are likely to be knowledgeable and can have a reasonable grasp of the global trends of ICT and e-business and hence, education may not really constitute a serious hindrance to MSMEs inability to explore and take advantage of the financial services in Nigeria.

Table 5.4: Socio-Demographic Profile of MSMEs Respondents

Age-Group	**Frequency**	**Percentage**
Less than 20 years	3	0.7
21-30 years	125	30.1
31-40 years	155	37.4
41-50 years	100	24.1
51-60 years	25	6.0
60 and above	7	1.7
Total	**415**	**100**
Educational attainment	**Frequency**	**Percentage**
Primary School incomplete	2	0.5
Secondary School incomplete	3	0.7
Secondary School complete	12	2.8
Advance Technical School complete	5	1.1
University Undergraduate incomplete	5	1.1
University Undergraduate complete	32	7.5
University Graduate incomplete	19	4.4
University Graduate complete	103	24.1
Those who did not respond	246	57.6
Total	**181**	**42.4**

Source: Computed by the Authors from the Field Survey 2017

5.6.3 Nature and characteristics of MSMEs in Lagos State

The characteristics of firms also form part of the background information that was examined. Based on the year in operation, the MSMEs were classified into three categories: the starter firm, the growing firms and the matured firms. The starter firms were MSMES that were less than three years in operation while those whose year of operation is between 4 and 10 are regarded as the growing firms, and 11 years and above are regarded as mature firms. As depicted in Table 21, most of the MSMEs are growing and mature firms. Only 13.4% of the firms surveyed were just starting up and only 12 (2.8%) of the respondents did not answer this question. 17 respondents did not know when their firm start operation, or refuse to provide the information.

Table 5.5: Age of the Firms

Firms' Age	Frequency	Percentage
Starter firm (0-3 years)	55	13.4
Growing firm (4-10 years)	163	39.8
Matured firm (11years - ∞)	192	46.8
Total	**410**	**100**

Source: Computed by the Authors from the Field Survey 2017

In terms of the type of businesses, we narrowed this down to four, for easy understanding. Manufacturing and construction are regarded as manufacturing, all services (transport, education, health etc) are grouped under services. Those engaged directly in land and animal farming are grouped to be in agriculture and those in retail and wholesale are grouped to under trade. The survey shows that 112 (26.2%) are in trade, 154 (36.1%) in manufacturing, 143 (33.5%) in services, and 18 (4.2%) in Agriculture. The category engaged in agricultural business is really low because Lagos state is a metro city that has little or no land for agricultural practises across the five administrative regions of the state. Manufacturing seemed to dominate, followed by services sector by the small margin.

Table 5.6: Businesses by sector

Sector of the firm	Frequency	Percentage
Trade	112	26.2
Manufacturing	154	36.1
Services	143	33.5
Agriculture	18	4.2
Total	**427**	**100**

Source: Computed by the Authors from the Field Survey 2017

In terms of the number of employees, those with between 0 and 5 employees are termed micro firms, those with between 6 and 20 employees are labelled small firms and between 21 and 100, medium firms. The survey consists of 238 (55.7%) micro, 153 (35.8) small and 36 (8.4%) medium firms. The recorded data of medium firms was low. This is believed to be because most of the employees seemed unwilling to fill the questionnaires and would not allow us to see the owners. However, the state is littered with micro businesses which reflect the level of development in the economy as a whole. Lagos state has a recorded data of 3 224 324 micro firms, 11 044 small firms, and 619 medium firms according to NBS and SMEDAN (2014) data.

Table 5.7: Number of MSMEs surveyed

MSMEs	Frequency	Percentage
Micro	238	55.7
Small	153	35.8
Medium	36	8.4
Total	**427**	**100**

Source: Computed by the Authors from the Field Survey 2017

We cross-tabulated MSMEs and the type of businesses to see the actual distribution of the survey in terms of size and the sector or business type. For trade, 89 (79.5%) micro firms, 17 (15.2%) small firms, and 6 (5.4%) medium firms. For manufacturing, 59 (38.3%) were micro, 75 (48.7%) were small, and 20 were medium firms. For services sector, we had 88 (61.5%) micro, 45 (31.5%) small, and 10 (7.0%) medium firms. Lastly, for agriculture, we had 2 (11.1%) micro, 16 (88.9%) small, and 0 for the medium firms. Micro firms dominated in almost all the type of businesses with the exception of manufacturing and agriculture where small firms dominated. Relative to the size of the firms, micro firms have an almost equal number of surveyed, in trade 89 (37.4%) and services 88 (37.0%). This is followed by manufacturing 59 (24.9%), and finally, agriculture constitutes the least 2 (0.8%). For the small firms, manufacturing clearly dominated with 75 (49.0%), followed by services 45 (29.4%), while trade and agriculture have almost the same number of respondents 17 (11.1%) and 16 (10.5%) respectively. Finally, for the medium firm, 20 (55.6%) were in manufacturing, 10 (27.8%) in services, 6 (16.7%) in trade and 0 for agriculture.

Table 5.8: Bivariate analysis of MSMEs and the type of businesses

		Firm size		
Sector of the firm	**Micro**	**Small**	**Medium**	**Total**
Trade	89 (79.5%)	17 (15.2%)	6 (5.4%)	112 (100%)
Manufacturing	59 (38.3%)	75 (48.7%)	20 (13.0%)	154 (100%)
Services	88 (61.5%)	45 (31.5%)	10 (7.0%)	143 (100%)
Agriculture	2 (11.1%)	16 (88.9%)	0 (0.0%)	18 (100%)
Total	**238 (55.7%)**	**153 (35.8%)**	**36 (8.4%)**	**427**

Source: Computed by the Authors from the Field Survey 2017

5.7 MSMES ACCESSIBILITY TO LOAN AND TRANSACTIONS COST

5.7.1 MSMEs Accessibility to Loan

The starting point for the analysis of the implication of transactions cost on MSMEs access to credit is to determine the level of access. Based on the distribution of respondents depicted in Table 5.9, 213 (49.9%) of the MSMEs surveyed have applied for loans from either commercial Banks or

microfinance banks. The survey further revealed that majority of MSMEs that have applied for a loan, applied to commercial banks (i.e. 170 out of 213 that have applied for a loan, representing 79.8%) and only 37 (17.4%) applied to microfinance banks only, and 6 (2.8%) applied to both commercial banks and microfinance institutions. Specifically, 170 (39.8%) of the MSMEs surveyed applied for a loan from the commercial bank and only 37 (8.7%) applied for a loan in Microfinance bank while 6 (1.4%) applied to both commercial banks and microfinance institution. There is an evidence that the MSMEs patronised commercial banks for credit much more than the Microfinance institutions despite the fact that Microfinances were established purposely for servicing small businesses in Nigeria, coupled with the fact that over 200 (around 50%) licensed and operating microfinance institutions operate in Lagos state, giving credence to Abel et al.'s (2012) assertion that commercial banks remain the greatest source of credit in an economy.

Table 5.9: Application for credit

Application for credit	**Frequency**	
	Yes	**No**
Has your firm ever applied for a loan from Commercial/Microfinance bank?	213 (51.3%)	202(48.7%)
If yes, type of bank:	**Frequency**	**Percentage**
Commercial Bank	170	79.8
Microfinance Bank	37	17.4
Both	6	2.8
Total	**213**	**100**

Source: Computed by the Author from the Field Survey, 2017

Table 5.10: Loan amount applied for

Amount (In Naira)	**Frequency**	**Percentage**
15,000-100,000	8	3.8
101,000-300,000	23	10.8
301,000-500,000	20	9.4
>500,000	162	76.1
Total	**213**	**100**
	Yes	**No**
Was the loan granted?	183 (85.9%)	30 (14.1%)

Source: Computed by the Author from the Field Survey, 2017

In terms of the loan size, the survey revealed that just 8 (3.8%) of the MSMEs that applied for loan, applied for less than 100 000 Naira ($ 333.33), while 23 (10.8%) applied for a loan between 100 000 and 300 000 Naira ($333.33-$1000), and 20 (9.4%) applied for a loan between 300 000 and 500 000 naira ($1000-$1666.67). The average loan requested by a majority of the MSMEs is around N500

000 ($1666.67) and above, which constitutes 76.1 percent (162) of the MSMEs that applied for a loan. The size of the loan requested seemed higher than what most microfinances can give without collateral, and hence the only option for the MSMEs is to seek the credit facility from the commercial banks. Therefore, MSMEs faced a mismatch between their needs and the capacity of the microfinance as most microfinances may not be able to meet their financial needs.

From table 5.10, is seen that 183 out of the 213 loan applications were granted while 30 loan applications were rejected. This means that 85.9% loan applications were granted while 14.1% loan application from the firms interviewed were rejected. This demonstrates that the bulk of the problem lies with firms actually coming out to apply and not in the rejection rate. Out of 427 surveyed, only 213 (49.9%) have ever applied for credit, and the majority of these surveyed firms have been in existence for more than three years. In actual figure 355 (83.1%) of the firms surveyed have been in existence for more than 3 years.

In digging deep to ascertain why these firms were not applying for loans from the financial institutions, we listed five options ranging from (i) firms just starting operation, (ii) not knowing the procedures, (iii) long process, (iv) costly process, to, (v) not interested in loan facilities. However, we gave room for an open-ended question by providing an option for the respondent to give other reasons outside these listed options. For the listed options, 12 (7.9%) indicated that their firms just started operations (with time they may join the credit market), 11 (7.2%) indicated that they do not know all the procedures involved in applying and obtaining credit (these firms need to be educated), 13 (8.6%) responded that the process for applying for loan takes too long (perception problem which education or right advertisement can solve) and 110 (72.4%) responded that they are not interested in loan facilities (they have rationed themselves out of the credit market). This 110 (72.4%) constitute the bulk of those that have been rationed out of the credit market. In the in-depth interview, we found out that high interest rate, religion, cultural beliefs and or the information asymmetry in the financial market and the uncertainty in the economy constitute major reasons for non-interest in the loan facilities. One of the interviewed said:

> *If I borrow money and I am not able to pay back early enough, I may not be able to sleep and with the way the economy is, no one is sure of tomorrow, it is better I make do with what I have than sending myself to an early grave because of a bad loan.*

This speaks volumes. The uncertainty (high interest rate, inflation and exchange rate volatility) in the economy hinders a lot of firms from engaging in any long-term plan (Ajuwon & Ogwumike, 2013), and this is limiting investment to short-term plans.

Table 5.11: Reasons why MSMEs are not applying for a loan

If you have never applied, why has your firm not applied for credit from a commercial bank?	Frequency	Percentage
My firm just started	12	7.9
I don't know all the procedures	11	7.2
The process takes a long time	13	8.6
The process costs a lot of money	6	3.9
I am not interested	110	72.4
Total	**152**	**100**

Source: Computed by the Authors from the Field Survey, 2017

The other reasons given were equally important. Two (0.5%) said the collateral requirement was too high, 6 (1.4%) said they do not have property to pledge as collateral. One (0.2) responded that the process costs a lot of money, while 20 (4.7%) responded that the interest rate was too high. One (0.2%) also responded that it is not easy to obtain loan facilities from the financial institutions, while 2 (0.5%) each responded by saying that the terms and conditions were not reasonable, and the loan repayment procedure was too stringent.

Table 5.12: Other reasons why MSMEs are not applying for a loan facility

Other reasons for not applying for loans		
Collateral is too high	65	(33%)
Cost of borrowing is too high	21	(10.7%)
The interest rate is very high	35	(17.7%)
It is not easy to obtain loan facilities	39	(19.8%)
Terms and condition is not reasonable	28	(14.2%)
Loan and interest repayment procedure not favourable	10	(5.1%)

Source: Computed by the Authors from the Field Survey, 2017

5.7.2 Transactions Cost

(i) On the transactions cost, the first part of table 6.11 itemised other charges incurred outside interest rate. Responses from MSMEs surveyed shows that other charges are application fees (as obtained from 130 out of 213 who have applied for a loan, representing 61.0% response), and 15 (7.4%) said advance commitment fees, 13 (6.1%) said processing and administrative fees and 12 (5.6%) says renewal facility fees.

(ii) The second analysis asked if this was the first time the processing a loan for the firm would be doing so. Of the total number respondents, 96 (45.1%) said yes, while the remaining 117 (54.9%)

said no. This shows that quite a number of firms seeking loan have done so more than once which is quite encouraging, and the number of new applicants was relatively high.

(iii) To dig deeper, we investigated the number of times the firm had applied for a loan and it showed that 102 (52%) had applied once, 60 (30.6%) had applied between 2 to 4 times, while 34 (17.4%) had applied more than 5 times.

(iv) We further asked if those that had applied for a loan more than once did apply with the same financial institution, and 34 (36.2%) out of the 94, applied for the loan with the same institutions.

(v) On the decision lag, some obtained credit within 24hours (especially from microfinance institutions), 136 (79.1%) said they received the bank decisions in not more than 14 days, while 29 (16.9%) acclaimed that the bank decision was received within 30 days, it is only 7 (4.1%) respondents who claimed to have received bank decisions in more than 30 days.

(vi) On the monetary cost of time lost during the loan application process, only 86 respondents could estimate the price tag on the time lost. Out of the 86, 36 (41.9%) said it was not more than 5000 naira, 9 (10.5%) said it was not more than 10 000 naira, and 41 (47.7) said it was more than 10 000 naira.

(vii) Finally, on the interest rate, which is the cost of capital, this is a major challenge for both MSMEs and financial institutions. This challenge may be caused by the high cost of doing business in Nigeria. The physical infrastructure is a serious challenge in Nigeria. Firms operate self-generating power plants most of the time as alternative source of energy which can be rather expensive. The roads are bad and poor transportation network. All these result to a lot of time waste on daily basis. These costs are factored into the cost of capital by the banks and these costs also reduce the profit margin for MSMEs which makes it difficult to be able to bear the high cost of capital. The major items for MSMEs difficulties in accessing credit are the high interest rates and collateral demand, compounded by the high level of economic uncertainty. 32 (19.2%) of the firms surveyed paid an interest rate of between 10 and 14% on their loan facility, while 38 (22.8%) paid between 15 and 19%. 25 (15%) paid between 20 and 24%, and 58 (34.7%) paid between 25 and 29%. Finally, 11 (6.6%) paid between 30 and 34% interest and 3 (1.8%) paid between 35 and 39% interest rate. It shows that on average, the cost of capital in Nigeria is between 20 and 30% which is favourably comparable to what is obtainable in some other African countries and relatively high varying from another section of African countries. In Africa, and in the World at large, Madagascar has the highest prime lending rate of 60%, followed by Malawi 44.9%. The Gambia is next with 30%. This is followed by Nigeria and Ghana having commercial bank prime lending rate of 28.5% and 28.6% respectively. South Africa is 9.4% and Botswana is 9% according to the CIA (2017). The least prime lending rate is Japan (1.5%), followed by Finland and Austria with 2% and 2.1% respectively.

Table 5.13: Transactions costs involved in loan applications

(i) Charges	**Frequency (%)**
Application fees	130 (61.0%%)
Advance commitment fees	15 (7.4%)
Processing and administrative fees	13 (6.1%)
Renewal facility fees	12 (5.6%)
Total	**170 (79.8%)**
(ii) Is this the first time to process a loan for your company	
Yes	96 (45.1%)
No	117 (54.9%)
Total	**213 (100%)**
(iii) How many times has your firm applied for a loan facility from commercial/microfinance bank?	
	Frequency
Once	102 (52.0%)
2-4 times	60 (30.6%)
5 times and above	34 (17.4%)
Total	**196 (100%)**
(iv) Are your firm's previous loan and the current loan with the same bank?	
	Frequency
(v) The bank decision lag	
Yes	34 (36.2%)
No	60 (63.8%)
Total	**94 (100%)**
1-14 days	136 (79.1%)
15-30 days	29 (16.9%)
More than 30 days	7 (4.1%)
Total	**172 (100%)**
(vi) Monetary cost of time lost during Loan Application Processing	
#1,000-#5,000	36 (41.9%)
#5,001-#10,000	9 (10.5%)
#10,001 & above	41(47.7%)
Total	**86 (100%)**

(vii) Cost of credit (interest rates paid)	
10-14	32 (19.2%)
15-19	38 (22.8%)
20-24	25 (15.0%)
25-29	58(34.7%)
30-34	11(6.6%)
35-39	3 (1.8%)
Total	**167 (100%)**

Source: Computed by the Authors from the Field Survey, 2017

5.7.3 Estimation of borrowing transaction costs function

In this subsection, the relationship between borrowing transactions cost and the explanatory variables of loan size, distance, decision lag, firm size, firm age, education, collateral and borrowing transaction cost is estimated. The relationship between transactions cost and each of these variables is examined in a transactions cost model which is specified implicitly as follows:

$$BTC = f(Loan, Distance, Declag, Firmsize, Firmage, education, collateral) \quad 5.2$$

Where:

BTC is the borrowing transactions cost; Loan is the amount/size of loan applied; Distance is the distance of borrowers from the loan office; Declag is the loan decision lag, defined as the number of days between when loan application is submitted and the approval or disapproval is received; firmsize is the firm size measured by the number of employees in the establishment; and firmage is the firm age measured by the number of years the firm has been in operation; education is the level of education attainment of the loan applicant; and collateral is the value of collateral the loan office is requesting or received before granting the credit facility.

We expect a positive a priori for Distance, Declag, and collateral value, and a negative a priori for Loan size, Firm size, Firm age and educational attainment of the loan applicant on Borrowing Transactions Cost (BTC).

Table 5.14: Analysis of Borrowing Transactions Cost Function

Dependent Variable: Borrowing Transactions Cost

Variable	Coefficient	t value	Probability
Loan	-0.000	-2.090	0.041
Distance	-0.038	-1.780	0.080
Declag	0.030	4.220	0.000
Firmsize	-0.024	-2.460	0.017
Firmage	-0.044	-1.340	0.184
Education	-0.353	-1.930	0.059
Collateral	0.356	2.680	0.009
Constant	93.688	1.440	0.156
R-square	0.560	F statistics	11.460
Adjusted R-square	0.511	Probability of F	0.000

Source: Computed by the Author from the Field Survey 2018

The R-squared and adjusted R-squared are 56% and 51%, indicating that the explainable variables being used capture the average determinants of transactions cost of the sample used. However, it has been observed that primary data is always exhibiting this characteristic (Figueiredo Filho, Paranhos, Rocha, Batista, Silva Jr, Santos, & Marino, 2013). The analysis shows loan amount to be negatively related to the transactions cost which implies that the higher the loan size, the less the transactions cost, this conforms with our a priori expectation and the coefficient is statistically significant. Distance is negatively related to transactions cost, which is not in tandem with the a priori expectation, and the coefficient is statistically significant at 8% level of significance. Decision lag is positively correlated with the transactions cost and the coefficient is statistically significant at 1% level of significance. Firm size, Firm age and the level of education of the loan processing officer are negatively correlated with borrowing transactions cost, which is in tandem to our a priori expectation. However, the result of the firmage is not statistically significant. Collateral is positively related to borrowing transactions cost and it is significant at 1% level of significance. This means that the higher the level of collateral required, the higher the borrowing transaction cost. This result is similar to what Masuko & Marufu (2003) obtained in their transaction cost analysis. Masuko & Marufu (2003) found that loan amount, borrowing experience, firm size and decision lag are negatively related to the borrowing transactions cost, and distance is positively related. The variables display the appropriate sign and conform with theories on how those variables are supposed to impact borrowing transactions cost, with the exception of distance.

5.7.4 Estimation of Borrowers' Average Transactions Cost

In determining the average total transactions cost incurred by borrowers in the course of obtaining credit, we look at both the explicit and the implicit transactions cost. Total cost of obtaining credit is the financial cost (interest payment) and the transactions cost (these are other costs borne outside cost of capital):

$$TCC = IC + TC \quad 5.3$$

Where TCC = total credit cost; IC = interest cost; and TC = transaction costs.

We found that on average, the decision lag takes about 38 days, which is rather high, and implying a huge cost. Transportation cost is around 300 naira on average which is reasonably okay, and shows that financial institutions are in close proximity with the market in Lagos state. On the opportunity cost of credit, this is rather on the high side, averaging 27000. Accounting services are also on the high side, with the same average of 27000 naira. Indicating that most of the small businesses are not in control of their accounting book. This area needs to be given proper attention. Lawyer services or legal costs is also very high with 48000 naira on average. Publication cost or paperwork cost is 300 naira on average which is a moderate cost.

On the cost of capital, which is the interest payment on the credit, it averages 19% and the collateral value placement averages 98.62%

Table 5.15: Estimation of borrowers' average transaction costs

Variable	No. Observ.	Mean	Std. Dev.	Minimum	Maximum
Decision Lag (Days)	195	37.76	38.10	1	180
Transport Cost (Naira)	124	287.69	295.29	50	1,500
Opportunity Cost (Naira)	86	26,891.86	41,500.30	1,000	150,000
Accountant service (Naira)	86	26,698.26	41,613.67	250	150,000
Lawyer service (Naira)	22	48,410.27	103,467.7	1	300,000
Publication cost (Naira)	10	301.90	481.74	1	1,000
Interest rate (Percentage)	167	19	1.33	10	35
Collateral value (Percentage)	118	98.62	4.64	0	180

Source: Computed by the Author from the Field Survey 2018

5.8 ANALYSIS OF THE LENDERS TRANSACTIONS COST

Interaction with commercial bank staff show that commercial banks pay lip service to the issue of credit to small businesses in Nigeria. All the commercial banks surveyed say that they are small businesses friendly and this can be seen in many sponsored programs for small businesses, such

as sponsored training for small businesses and young entrepreneurs, an educative program on radio and television etc. However, when it comes to extension of credit to small businesses, it is not the same story. The yardstick used in evaluating loan officers is not about how many customers a loan officer is serving but about how much savings he is able to bring and how much loan he is able to grant, which does not favour small firms. What concerns the loan officer majorly is accruing big savings and being able to give out big loans, and the least, paying attention to the small firms. At the financial institution headquarters, the mode of giving loans is standardised, irrespective of the loan or firm size. This also is a disadvantage to small businesses.

The microfinance institutions also operate more like commercial banks to breakeven and therefore are more interested in firms that are highly profitable. Also, since microfinance institutions do not receive any form of financial support from the government, they tend to cherry pick projects to grant credit facilities.

Table 5.16: Lenders Transactions Cost Indices

Active portfolio efficiency	(Transaction cost/Active portfolio) * 100
Portfolio Profitability	(Operating revenues – Financial investment revenues) / Active portfolio * 100
Cost per Borrower	Transaction costs/number of active clients
Team productivity (units)	Total number of active clients/number of employees (staff in the credit unit)

Source: Fachini et al., 2008

Active portfolio efficiency is the lender's transactions cost which was modelled on; portfolio profitability, cost per borrower and team productivity. The portfolio profitability measures how much the bank has effectively received on interest and fine payment per loan unit for a given period. The cost per borrower shows the average cost to provide a loan to each client of the bank, and the team productivity, which evaluates the efficiency of the staff in the credit unit both in the administration of the loan portfolios and in attracting new clients to the bank.

The bank officers refuse to fill the designed questionnaires due to the confidentiality clause, and those that offer to fill the questionnaires, refused to provide any data. It was the annual financial statement that provides the information used in analysing the portfolio profitability, active portfolio efficiency, and the team productivity. However, the number of active borrowers was not captured in their annual financial statement, which restricted the ability to calculate the cost per borrower.

The data is sourced from 2016 annual financial statement of the banks, with the exemption of Citibank, and Sterling Bank where we used their 2015 financial statement, and Fidelity bank, where we used the 2017 3rd quarter statement of account, because we could not lay hands on their 2016 annual financial statements. We were also able to get one microfinance institution (Fortis) annual statement of account and it was included.

The analysis of the lender transactions cost shows that GT Bank is the most efficient bank in Nigeria with the highest and most active portfolio efficiency, portfolio profitability and team productivity for all the banks that were analysed.

For active portfolio efficiency, GT Bank (191.05) tops the chart, followed by Citibank (33.73) and Fortis microfinance (23.16), while Standard chartered (5.43) rocked the bottom. For portfolio profitability, GT Bank still tops the chart with 47.02 indexes. Fortis microfinance had the second-highest index of 8.39, while CitiBank has the third highest portfolio profitability (6.43), with Ecobank (0.01) at the bottom. Likewise, for the team productivity, GT Bank top the chart with 5.73 indexes. The second-best team productivity is Union Bank with 15.68 indexes. Ecobank that had the least portfolio profitability is found to have the least team productivity index of 19078.9, followed by Heritage Bank (97.72), emerging second least in portfolio profitability (0.65). On the average, only two banks have an index in active portfolio efficiency that passes the average of 26.62, which are Citi Bank and GT Bank. The inefficiencies exhibited in these indices are believed to be responsible for the high transactions cost. The financial institutions need to be proactive and more efficient.

Table 5.17: Analysis of the Lenders transactions cost

Bank	Active Portfolio Efficiency↑	Portfolio Profitability↑	Team Productivity↓
Access Bank	13.21955	5.30478	41.07155
Citi Bank	33.72985	6.433553	16.17685
Diamond Bank	16.26549	5.949523	30.08547
EcoBank	15.48917	0.005869	19,078.9
Fidelity	17.14265	1.156875	26.38173
FirstBank	20.04476	5.831825	26.70272
Fortis microfinance	23.16465	8.38679	35.22176
GTB	191.0511	47.02014	5.727892
Heritage	5.047385	0.648917	97.71938
Skye Bank	14.00848	4.14261	25.01057
STANBIC	15.2918	5.852225	22.49394
Standard Chartered	5.426329	0.868103	45.6354
Sterling	23.88627	3.446739	31.2449
UBA	16.26195	5.253243	25.84208
UNION	19.46621	5.278736	15.68451
WEMA	19.57896	5.344282	21.99273
ZENITH	16.06804	3.947464	34.35578
Total	26.61951	6.611904	1,089.181

Source: Computed by the Authors from the Field Survey, 2017

Due to the unwillingness of the financial institutions to release their data, it was impossible to make any further analysis of the equilibrium level of transactions cost.

5.8 SUMMARY

This chapter seeks to investigate the impact of transactions cost on MSMEs access to loan from the financial institutions. The chapter has identified the aspects of transactions cost posing challenges for MSMEs, and they are the interest rate, as attested to by Beck and Cull (2014) who found that the biggest constraints facing SMEs in African countries are access to financing and its attendant problem of high borrowing interest rate. Another factor is the attitude of the financial institutions to MSMEs access to credit, and the collateral value and type. For the financial institutions, there is a wide discrepancy between portfolio efficiency and team productivity which affect portfolio profitability. Commercial banks in Nigeria need to be pro-active to remain profitable. Also, Financial Institutions need to do more in the area of decision lag and efficiency in order to increase access to credit facilities.

In the light of the findings emanating from this study, the financial institutions need to do more in bringing down transactions cost. This we believe, can be achieved by adopting group lending (since it has been found to reduce transaction costs for the financial institutions, by transferring the bulk of the transaction costs to the group (Fachini et. al., 2008)), and agent banking approach which would lower operating costs, as well as spreading risks, and ultimately increasing credit intermediation to the small businesses (Buri, Cull, Giné, Harten, & Heitmann, 2018).

CHAPTER SIX
COLLATERAL AND MSME FINANCING

6.0 INTRODUCTION

Any country that wants to grow its economy, needs to pay attention to small businesses as they are the engine of growth both in the developed and developing countries alike. Access to finance has been identified to be a major constraint to the development of MSMEs, due to information asymmetry. Debt financing especially from the Commercial Banks and Microfinance Banks are the most common sources of external finance for MSMEs in the developing economies for many reasons. First is the prevalence of banking institutions to other forms of financial institutions. Secondly, it is the cheaper source of external finance due to tax deductibility of the interest expense (Abe et al., 2016; Amoako-Adu & Eshun, 2018). Third, the income per capita is low in developing countries and therefore capital is scarce, hence equity is not easily available. However, bank loan is still seriously difficult to obtain for MSMEs, especially the start-up because of information asymmetry. Pledging collateral is often treated as an effective means of solving the problem of information asymmetry. However, collateral is a scarce commodity among small businesses. The requirements for credit by banks range from proper documentation of account history of firms, well written proposal of project to be financed, and a sizeable collateral value among others. Many small business managers cannot provide project proposals that comply with the minimum requirements of the bank to be qualified for consideration for financing (Badulescu & Badulescu, 2010).

Banking institutions find it difficult to extend credit to MSMEs because of the political and economic instability, and the credit risks of MSMEs, especially in developing countries (Rahman et al., 2016). The high interest rate charged by the lenders reflect the persistent high inflation rate, high credit risk of MSMEs, and other high cost of doing business in the country. Also, collateral requirement, which serves as a factor mitigating the credit risk due to information asymmetry between borrowers and lenders, is a scarce commodity for the small businesses especially in developing countries where capital is a very scarce commodity as can be observed in the low per capita income in the developing economy (Amoako-Adu & Eshun, 2018). Other challenges posed by collateral to lending institutions are market illiquidity (to sell the collateral in case of a default can be a challenge), legal, administrative, and valuation difficulties among others (Amoako-Adu & Eshun, 2018). Collateral tend to be physical assets of land and house, which require valuation. However, the valuation process tends to be relatively unreliable in the developing countries. Getting these assets registered could also pose a serious challenge in these economies. For instance, in Nigeria, getting certificate of occupancy from the government agency could be a herculean task. This makes it very difficult to verify whether the pledger legitimately owns the assets pledged.

Another issue of great concern is the ease with which collateral could be converted to liquid in a country such as Nigeria. Menkhoff, Neuberger, & Rungruxsirivorn, (2012) find that MSME borrowers in less developed economies have lower value of collateral to pledge with, and this reduces the chances of banks extending credit to them. Beck, Demirguc-Kunt, Laeven, & Maksimovic, (2006), using data across 91 large banks from 45 countries, found that collateral requirement is the third most difficult constrain for MSMEs access to finance, after high interest rate and lack of long-term loan. Hoque, Sultana, & Thalil, (2016) found that 44.5% of their respondents did not apply for bank loan because they had no collateral to pledge.

With these many issues associated with collateral and the use of traditional collateral, there is the need to start thinking of alternative collateral if we truly want to give the needed attention to the problem of access to finance for MSMEs in Nigeria. It is with this that this chapter will be addressing MSMEs financing and alternative collateral.

6.1 LITERATURE REVIEW

The use of collateral on loan contract is a widespread phenomenon by banks (Rahman, Rahman & Kljucnikov, 2016). Steijvers, Voordeckers, & Vanhoof, (2010) found that 87% of loan contract in USA were secured with collateral. Davydenko & Franks (2008) found 75.7% loan contract in France to be secured, while it is 88.5% in Germany. Degryse & Cayseele (1998) shows that only 26% of loans were secured in Belgium. While Menkhoff et al. (2012) found that around 15% of loans are secured in Thailand. Across countries of the world, bank loans are secured basically with collateral but in varying degrees and different types of collateral were preferred across bank sizes and bank ownership types in different countries of the world (Rahman et al., 2016).

Literature shows that collateral acts as a disciplinary role for borrowers and that it can solve both the problem of adverse selection (Jimenez, Salas, & Saurina, 2006; Jimenez & Saurina, 2009; Hainz, Weill, & Godlewski, 2013) and moral hazard (Menkhoff et al., 2006; 2012). However, Blazy & Weill (2013) did not find collateral to reduce the asymmetric information associated with credit risk, and concluded that asking for collateral is not due to information asymmetry but more of bank internal lending policy for credit extension. Jimenez & Saurina (2004) find that the credit given on the basis of collateral security are more ex-post risky than the credit without any. From this, one can argue that collateral is a form of insurance on loan for the banks. If this is the case, then we need to start asking ourselves if this is not a double insurance policy on credit since banks actually insure their loans. If we argue that it is to discipline borrowers, the question here is, are there no other ways to discipline the borrowers other than for them to pledge collateral? How effective is the discipline when many collateralised loans default? Jimenez & Saurina (2004) found that loans given based on collateral are more ex-post riskier than loans given without collateral. They infer that collateral pledged loan make banks less restrictive to evaluate the quality of loans and therefore the default

rate is higher than the non-collateralised loans. Another question we may wish to ask here is whether or not this were not a case of lazy bank?

6.2 MODEL SPECIFICATIONS

The models investigate problems with access to credit for MSMEs in Nigeria, by looking at the impact of collateral pledging on accessing credit from commercial banks and Microfinance institutions. It also takes into consideration the MSMEs characteristics, the macroeconomic environment in Nigeria and the lending policies of commercial banks. In determining the impact of collateral pledging on access to credit by MSMEs, we wish to examine critically the percentage ratio of assets pledged to the loan amount. We also seek to know the opinion of the borrowers to ascertain whether the assets pledged were higher than they could afford, and to what extend the collateral pledging constituted a constraint to access to credit for their firms.

6.3 SOURCES AND METHODS OF DATA COLLECTION

This research analysis employs solely the primary data from surveys of MSMEs. The modality employed to collect data for this research work would be discussed hereafter. Methods of collecting the primary data were first discussed.

6.3.1 Primary Data using Survey Method

6.3.1.1 Study Area and the Target Population

The study was conducted in the urban and sub-urban area of Lagos State, Nigeria. Lagos state lies on the coordinate: 6^0 35' 0` N, $3^0$ 45' 0` E, with a total land area of 3,577km^2 (1,381 sq. mi), and a population size estimate of 21 million (NPS, 2012). Lagos state comprises five main divisions: Lagos Island, Ikeja (the capital city), Badagry, Ikorodu and Epe, and is administratively divided into 20 local governments (Appendix A). Lagos state was selected for the research because it is one of the major commercial cities[7] and the financial hub of the country[8]. The targeted population of the study is the various types of MSMEs covering manufacturing, trading, services, and Agriculture. Primary and secondary data were collected on financial institutions (basically commercial banks and Micro Finance Institutions) that extend credit to small businesses in the country.

[7] It is referred to as the economic nerve of the country in which 35% of MSMEs are situated. Also, 65% of the commercial activities in the country take place in Lagos state (NBS and SMEDAN, 2010 and 2013).

[8] 19 out of 21 commercial banks in the country have their head office in Lagos state, the remaining 2 (Jaiz Bank Plc and Unity Bank Plc), have their head office in the federal Capital Territory (FCT), Abuja.

Figure 6.1: LGAs in Lagos Metropolitan

Source: Google Map.

Two surveys were conducted covering the borrowers (MSMEs) and the lenders (Financial institutions) in the study area (Lagos state). The primary data was a non-experimental research design. This study employed a two-way method to generate both qualitative and quantitative data, using cross sectional survey and in-depth interview. Cross sectional survey method was used to generate quantitative data; and in-depth interview elicited qualitative data from relevant stakeholders (commercial banks, microfinance banks, ministries and relevant agency bodies). The choice of two-way methodological standpoint become imperative in recognition of the need to capture the maximum information possible that should be unbiased and comprehensive.

The first stage of the survey that involved the MSMEs was carried out using multi-stage stratified random sampling to select the sample from the targeted population of MSMEs which was stratified by attributes such as location of the firm (it is relevant to determine the key access and proximity factor as well as ensuring that the survey represent the population well), the sector of the enterprise (manufacturing, services, trade and agriculture), as well as the size of the enterprise (Micro, Small and Medium enterprises).

Stage 1: involves using the 5-divisional areas in the state (Lagos Island, Ikeja, Badagry, Ikorodu, and Epe).

Stage 2: each sub-group was further stratified by type of business (manufacturing, trade, services, and agriculture) being another key determinant in the analysis to ensure that the analysis is encompassing.

Stage 3: MSMEs within each locality and business type substrata were further divided by size of the firm (Micro, Small and Medium) using the number of permanent employees as the yardstick for classification. As regards to the number of employees, firm with between 0 and 5 employees were

termed micro, those with between 6 and 20 employees are labelled small firms and those between 21 and 100 are labelled medium firms.

To adequately represent these groups, a sub-sample was selected from each location-business type-firm size group. Variable sample fractions were used to allocate the total sample between these strata depending on availability of an appropriate, adequate and up-to-date sampling frame. The selection was then performed in stages. In stage one, the sample size in each of the five localities was selected. In the second stage, the sample size in each locality was further divided into Micro, Small and Medium firms, using snowball sampling techniques (to bridge the trust gap). Finally, in each locality and within firm sizes, we ensured that different business types (Manufacturing, Agriculture, Services, and Trade) were well represented.

6.3.1.2 Calculation of the sample size

The following present steps were used to identify the sample size used for this analysis.

Step1: Sample size calculation

The appropriate sample size for a population-based survey is majorly determined by three factors: (i) the estimated prevalence of the variable of interest – Population in this instance; (ii) the desired level of confidence; and, (iii) the acceptable margin of error.

For a survey design based on a simple random sample, the sample size required can be calculated using Yamane (1973) formula:

$$n = \frac{N}{1+N(e)^2} \qquad 6.1$$

Where

n is the required sample size

N stands for the population of MSMEs in Lagos, which according to NBS & SMEDAN (2014) survey, is 3 235 987 enterprises, micro alone being 3 224 324, small 11 044 and medium, is 619. e stands for the degree of freedom, which in this case is 5%

This yields a simple random sample size of:

$$n = \frac{3235987}{1 + 3235987(0.05)^2} = 399.95$$

Step 2: Nonresponse

In surveys, it is expected that some of the sample to be surveyed would not respond. It is a common practise to cater for such expected nonresponse by applying a built-in in the sample-size using a statistical model. The nonresponse built-in factor is usually estimated either from previous surveys

of similar subject or from the response from the pilot survey. For this research, we employed the response from the pilot survey which yielded a nonresponse rate of approximately 20%.

$$n = \frac{3235987}{1 + 3235987(0.0025)^2} * 1.2 = 479.94$$

This sample size of 480 was the proposed sample size for this survey. This sample size was proportionately allocated to the 80 strata as described below.

For sample allocation purposes and to avoid sample misrepresentation, sampling fractions were done using the enterprise's density in each of the five-administrative stratifications of the state. The weighted average for each substratum (comprising manufacturing, agriculture, trade and services) was computed by dividing the number of MSMEs in each substratum by the total population of MSMEs in Lagos state. The weight factors (sampling fractions) in each division were then multiplied by the total sampling size to determine the sample size for each stratum.

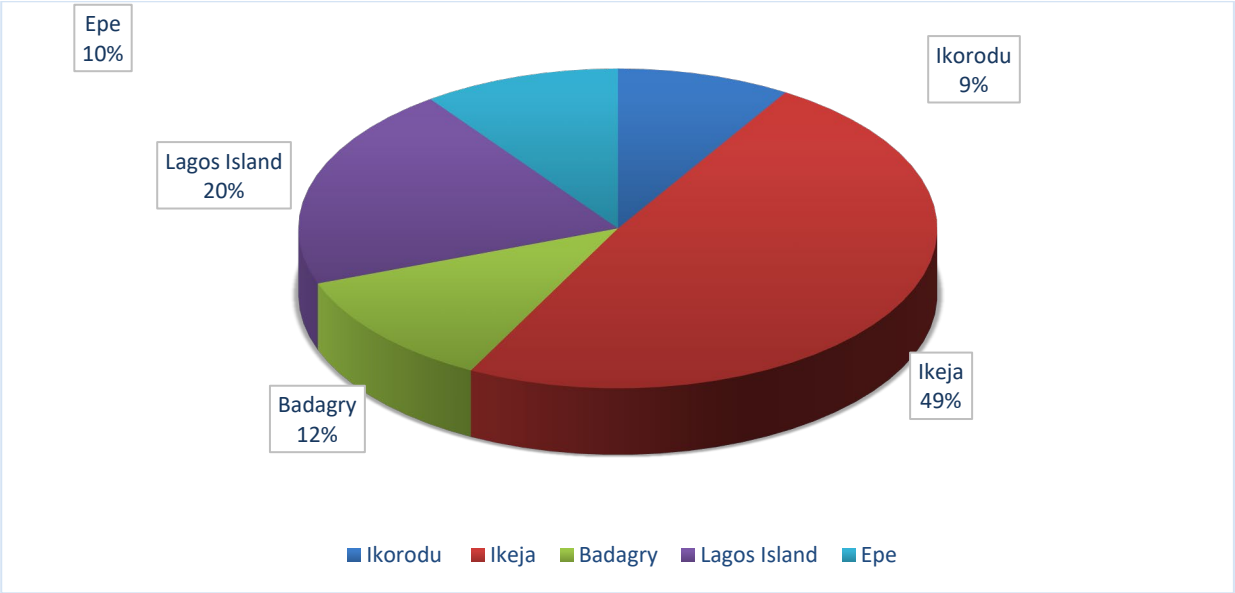
Table 6.1 shows the distribution of MSMEs sampled in each of the five-administrative areas of Lagos state and the distribution of the enterprises according to their size and sectors in each area.

Table 6.1: Sample distribution of MSMEs by strata

Region	Sector	ENTERPRISE TYPE			
		Micro	**Small**	**Medium**	**Total**
Ikorodu	Manufacturing	10	6	0	16
	Agriculture	5	3	0	8
	Trade	7	3	0	10
	Services	5	3	2	10
	Total	**27**	**15**	**2**	**44**
Ikeja	Manufacturing	49	26	10	85
	Agriculture	7	5	0	12
	Trade	40	19	8	67
	Services	43	24	13	80
	Total	**139**	**74**	**31**	**244**
Badagry	Manufacturing	12	7	3	22
	Agriculture	3	2	1	6
	Trade	9	5	3	17
	Services	8	4	2	14
	Total	**32**	**18**	**9**	**59**
Lagos Island	Manufacturing	20	10	6	36
	Agriculture	0	0	0	0
	Trade	20	10	6	36
	Services	15	10	6	31
	Total	**55**	**30**	**18**	**103**
Epe	Manufacturing	11	6	4	21
	Agriculture	3	2	0	5
	Trade	8	3	1	12
	Services	8	3	1	12
	Total	**30**	**14**	**6**	**50**

Source: Computed by the Authors

Figure 6.2: Distribution of MSMEs according to the five administrative areas



Source: Computed by the Authors

6.4 SURVEY INSTRUMENTS AND DATA COLLECTED ON VARIABLES OF INTEREST

Data for MSMEs were collected using a structured questionnaire (see the structured questionnaire in Appendix B). The questionnaires used were first pretested in a pilot survey to check the validity of the questions, and suitability of the unit of measurement, as well as the order of the questions, an estimate of the length of interview time, and the best time for survey visit. We also identified major sources of non-random errors and the percentages of non-responsiveness. Based on the results of the pilot surveyed, the main survey plans and schedules of the field work were developed and implemented by the enumerators through direct interviewing of selected and willing respondents. The enumerators used were professional researchers whose primary work was collecting primary data from the field and this made their training easier. The survey of MSMEs was carried out during the month of November and December 2016, by five enumerators, one for each administrative area. In the end, the enumerators were able to obtain 427 adjudged valid responses within the five-administrative regions of Lagos state.

6.5 SOCIOECONOMIC CHARACTERISTICS OF MSMES AND THE BORROWING TRANSACTION COSTS

6.5.1 Attributes of MSMES in Lagos State

This section presents the socio-demographic and economic characteristics of the MSMEs and the triangulation and cross tabulation of these socioeconomic characteristics with the borrowing transaction cost attributes of the MSMEs in the Lagos state of Nigeria. This section also identifies those characteristics that have a significant correlation to the borrowing behaviour and attitudes of the MSMEs in the sample area.

Based on the sample size formula discussed, and given the size of MSMEs in Lagos state, the minimum number of MSME that should be sampled is 400 and in order to give room for non-response and invalid response, five hundred questionnaires were distributed as against 480 prescribed by the formula used. Efforts were made to retrieve all the questionnaires but after collation and scrutiny of the responses, not all the questionnaires were found admissible for analysis.

Out of the 500 questionnaires, only 427 (85.4%) were adjudged correctly filled with consistent valid responses. Table 6.2 shows the MSMEs population, the number of questionnairess distributed, questionnaires retrieved and the percentage response. Ikorodu (44), Ikeja (227), Badagry (31), Lagos Island (95), and Epe (20), with 100%, 93%, 53%, 92% and 60% response respectively. The overall response rate (85.4%) is considered higher with response rates of other similar studies in Lagos state such as Oke (2005), and Bowale & Akinlo (2012) both response rates at approximately 70%.

Table 6.2: Sample distribution of MSMEs by strata

	MSMEs Population	Questionnaire Distributed	Questionnaire Retrieved	Percentage Response
Ikorodu	282,65	44	44	100
Ikeja	1,576,516	244	227	93
Badagry	381,585	59	31	53
Lagos Island	670,232	103	95	92
Epe	325,889	50	30	60
Total	**3,235,987**	**500**	**427**	**85.4**

Source: Computed by the Authors from the Field Survey, 2017

6.5.2 Analysis of socio-demographic characteristics of MSMEs respondents

Table 6.3 shows the distribution of the respondents according to age and educational attainment. The distribution of the MSMEs by the age of the respondents shows that the bulk (91.5%) of owners of MSMEs in Lagos states are 21 to 50 age bracket which implied that they were in their active years. Specifically, about 30.1 percent of the respondents were between the ages of 21 and 30 years while 37.4 percent were in their 30s. A substantial proportion (24.1%) of the respondents also fell between the ages of 40 and 50 years while less than 8 percent were people older than 50 years, and 12 respondents refuse to disclose their age. This shows respondent to be matured and should give a meaningful response.

The distribution of education attainment of the respondents showed that majority of the respondents were literate and well educated, although more than 50% (246) did not answer the question. Of the respondents, only 1.2 percent did not complete secondary education, 5.1 percent of the respondents had never been to a university. Less than 2 percent had not completed their university education,

7.5 percent of the respondents were university graduates, 4.4 percent were undergoing a post-graduate degree program, 24.1% had completed post-graduate pursuits. This implies that quite a sizeable number of business owners are likely to be knowledgeable and can key in to the global trend of ICT and e-business and hence education may not constitute a major hindrance to MSMEs ability to explore and take advantage of the financial services in the country.

Table 6.3: Socio-demographic profile of MSMEs respondents

Age group	**Frequency**	**Percentage**
Less than 20 years	3	0.7
21-30 years	125	30.1
31-40 years	155	37.4
41-50 years	100	24.1
51-60 years	25	6.0
61 and above	7	1.7
Total	**415**	**100**
Educational attainment	**Frequency**	**Percentage**
Primary School incomplete	2	0.5
Secondary School incomplete	3	0.7
Secondary School complete	12	2.8
Advance Technical School complete	5	1.1
University Undergraduate incomplete	5	1.1
University Undergraduate complete	32	7.5
University Graduate incomplete	19	4.4
University Graduate complete	103	24.1
Those who did not respond	246	57.6
Total	**181**	**42.4**

Source: Computed by the Authors from the Field Survey 2017

6.5.3 Nature and characteristics of MSMEs in Lagos state

The characteristics of firms also form part of the background information examined. Based on the year in operation, the MSMEs were classified into three categories namely the starter firms, the growing firms and the matured firms. The starter firms were MSMES that were less than three years standing in operations while those whose years of operation were between 4 and 10 regarded as the growing firms, and above 10 years are regarded as mature firms. As depicted in Table 6.4, most of the MSMEs are growing and mature firms. Only 13.4% of the firms surveyed were just starting up and only 12 (2.8%) of the respondents did not answer this question.

Table 6.4: Age of the Firms

Firms' Age	Frequency	Percentage
Starter firm (0-3 years)	55	13.4
Growing firm (4-10 years)	163	39.8
Matured firm (11 years - ∞)	192	46.8
Total	**410**	**100**

Source: Computed by the Authors from the Field Survey 2017

In terms of type of businesses, we narrowed this down to four, for easy understanding. Manufacturing and construction are regarded as manufacturing, all services (transport, education, health etc) are grouped under services. Those engaged directly in land and animal farming are grouped to be in agriculture and those in retail and wholesale are grouped to be in a trade. The survey shows that 112 (26.2%) are in trade, 154 (36.1%) in manufacturing, 143 (33.5%) in services, and 18 (4.2%) in Agriculture. Those engaged in agricultural business were observed to be low, and this was not a surprise as Lagos state is a metro city with little or no land for agricultural practices across the five administrative regions of the state. Manufacturing seemed to dominate closely followed by the services sector.

Table 6.5: Businesses by Sector

Sector of the firm	Frequency	Percentage
Trade	112	26.2
Manufacturing	154	36.1
Services	143	33.5
Agriculture	18	4.2
Total	**427**	**100**

Source: Computed by the Authors from the Field Survey 2017

As regards to the number of employees, firm with between 0 and 5 employees were termed micro, those with between 6 and 20 employees are labelled small firms and those between 21 and 100 are labelled medium firms. The survey consists of 238 (55.7%) micro firms, 153 (35.8) small firms and 36 (8.4%) medium firms. The medium firm respondents were few because most of the employees were not willing to fill the questionnaires and would not allow us to see the owners. However, the state was littered with micro businesses which reflect the level of development in the economy as a whole. Lagos state has 3 224 324 micro firms, 11 044 small firms, and 619 medium firms according to NBS and SMEDAN (2014) data.

Table 6.6: Number of MSMEs surveyed

MSMEs	Frequency	Percentage
Micro	238	55.7
Small	153	35.8
Medium	36	8.4
Total	**427**	**100**

Source: Computed by the Authors from the Field Survey 2017

We cross tabulated MSMEs and the type of businesses to see the actual distribution of the survey in terms of size and the sector or business types. In the trade subsector, 89 (79.5%) were micro firm, 17 (15.2%) small firm, and 6 (5.4%) were medium firms. For manufacturing subsector, 59 (38.3%) were micro, 75 (48.7%) were small, and 20 were medium firms. For service subsector, we have 88 (61.5%) micro, 45 (31.5%) small, and 10 (7.0%) medium firms. Lastly, for agriculture, we have 2 (11.1%) micro, 16 (88.9%) small, and 0 for the medium firm. Micro firms dominated in almost all the types of businesses with the exception of manufacturing and agriculture where small firms dominated. Relative to the size of the firms, micro firms have an almost equal number of surveyed in trade 89 (37.4%) and services 88 (37.0%). This is followed by manufacturing 59 (24.9%), and finally, agriculture constitutes the least 2 (0.8%). For the small firms, manufacturing clearly dominated with 75 (49.0%), followed by services 45 (29.4%), while trade and agriculture have almost the same number of respondents 17 (11.1%) and 16 (10.5%) respectively. Finally, for the medium firm, 20 (55.6%) were in manufacturing, 10 (27.8%) in services, 6 (16.7%) in trade and 0 for agriculture. This shows that all the sectors were well represented.

Table 6.7: Bivariate analysis of MSMEs and the type of businesses

	Firm size			
Sector of the firm	**Micro**	**Small**	**Medium**	**Total**
Trade	89 (79.5%)	17 (15.2%)	6 (5.4%)	112 (100%)
Manufacturing	59 (38.3%)	75 (48.7%)	20 (13.0%)	154 (100%)
Services	88 (61.5%)	45 (31.5%)	10 (7.0%)	143 (100%)
Agriculture	2 (11.1%)	16 (88.9%)	0 (0.0%)	18 (100%)
Total	**238 (55.7%)**	**153 (35.8%)**	**36 (8.4%)**	**427**

Source: Computed by the Authors from the Field Survey 2017

6.6 THE EFFECTS OF COLLATERAL ON CREDIT ACCESSIBILITY FOR MSMES

Table 6.8 summarises the effect of collateral on MSMEs access to credit. The first question was to investigate if loan obtained is backed by collateral. 134 (62.91%) responded with yes and 79 (37.08%) responded with no. 62.91% compare favourably with what is obtained even in the

developed economies. Steijvers et.al., (2010) reported 87% for USA, Degryse & Caysaele (1998) reported 88.5% for Germany and Davydenko & Franks (2008), reported 75.7% for France. However, our data contained credit by Microfinance Banks, and this might also not be a good representative of what is obtainable in other part of the country.

We furthered the investigation, by finding the appropriate collateral value that was pledged on loans and we found out that 7 (5.22%) responded with between a collateral ratio of 1-60 percent of the loan value, 35 (26.12%) responded with 61-100 percent of the loan value, while 57 (42.54%) responded with 101-140 percent of the loan value. Only 7 responses had 141-180 percent of the loan value, while 4 people pledged more than 180% collateral of the loan value. On the average, the collateral value ratio is 88%. This is on the high side, even for what is obtainable in the developing countries. 80% and below is what is obtainable on the average in the developing countries, and below 60% for developed economy (IFC, 2008). What we have demonstrated is to confirm what is in the literature that bank loans are secured basically with collateral but in varying degrees as attested to by Rahman et.al., (2016). It also confirmed that the average value is high in Nigeria, and poses constrain to MSMEs access to financing.

We furthered the investigation by finding the items acceptable as collateral for their current loan. 121 (90.30%) says it is mortgaged which clearly demonstrate that Nigerian banks have not moved away from traditional collateral. However, it is encouraging to know that mobile collateral is also acceptable such as inventories. 8 (5.97%) pledged deposits and securities, while 2 (1.49%) were guarantee by the government. 22 (16.42%) pledged machinery (lien on machinery and other equipment), and 8 (5.97%) pledged inventory. 4 (2.99%) gave a letter of comfort.

On the view of MSMEs on the value of collateral the financial institutions demand, 204 (70.59%) said the collateral value is too high, 82 (28.37%) said the collateral value is moderate, and 3 (1.04%) said the collateral value is relatively low.

Finally, we sought to know if the collateral would affect their access to credit and 192 (45.93%) said yes, while 226 (54.07%) said no. With 45% of the firm surveyed saying that collateral constituted constrain on access to finance, this is huge and it require urgent attention.

Table 6.8: Collateral and Credit accessibility by MSMEs

(i) Was loan obtained by your firm backed by collateral?	**Frequency (%)**	
Yes	134 (62.91%%)	
No	79 (37.09%)	
Total	**213(100%)**	
(ii) Please tick the most appropriate collateral value that was charged on your firm loan.		
		Average value
1-60	7(5.22%)	31*7 = 217
61-100	35 (26.12%)	81*35 = 2835
101-140	57 (42.54%)	121*57 = 6897
141-180	7 (5.22%)	161*7 = 1127
>180	4 (2.99%)	180*4 = 720
Total	134 (100%)	11796/134 = 88.03%
(iii) Which item is acceptable as collateral for your loan?	**Frequency**	
Mortgages	121 (90.30%)	
Pledged deposits and securities	8 (5.97%)	
Guarantees (Government)	2 (1.49%)	
Lien on Machinery and other equipment	22 (16.42%)	
Pledge or lien on inventory	8 (5.97%)	
Letter of comfort	4 (2.99%)	
Total	134 (100%)	
(iv) What is your view about the value of collateral the bank request for a loan?		
	Frequency	
Very High	204 (70.59%)	
Moderate	82 (28.37%)	
Low	3 (1.04%)	
Total	**289 (100%)**	
(v) With your firm, is collateral a problem affecting access to credit?		
	Frequency	
Yes	192 (45.93%)	
No	226 (54.07%)	
Total	**418 (100%)**	

Source: Computed by the Authors

We believe that if the alternative to collateral explained below is given proper consideration by all stakeholders, it would go a loan way to reduce obstacles of access to finance for MSMEs in Nigeria. Financial institutions need to do more to move away from the traditional system of collateral so as to increase intermediation for MSMEs.

6.7 ALTERNATIVES TO COLLATERAL IN MSME FINANCING

Banks traditionally require that clients provide collateral such as land or real estate to secure their loans. However, many creditworthy MSMEs do not have the type of collateral required by the banks and therefore have trouble accessing needed financing. Since it is established that collateral asset is scarce in developing countries (Cuevas & Douglas, 1988), and specifically among MSMEs on one hand, and without collateral to pledge, access to credit is constrained for MSMEs. To solve this problem is to start looking at alternative to collateral. In this regard, we shall examine leasing, invoice financing and factoring, agent banking, relationship-based lending, group lending, credit guarantee scheme lending and cash-flow lending as alternative to collateral:

6.7.1 Invoice Financing/Invoice Factoring

When firms sell their products to customers, they usually do so on credit, especially when they are selling to another firm. This means that the customers do not have to pay immediately for the goods they purchase. The purchasing company is given an invoice that has the total amount due and the bill's due date. However, offering credit to clients tie up funds that a firm may otherwise have needed, to invest or grow its operations. To finance slow-paying accounts receivable or to meet short-term liquidity, businesses may opt to finance their invoices. Invoice financing, also known as invoice trading or financing of account receivables, is a short-term alternative funding solution which allows firms to draw down cash against outstanding invoices due from customers (Sopranzetti, 1998). Put in another way, it is a way firms borrow money against the amounts due from customers. The difference between invoice financing and invoice factoring is that while invoice financing is borrowing money against account receivables, invoice factoring is selling the account receivables to another firm completely, it is a pre-selling of unpaid invoices to another company (Bakker, Klapper & Udell, 2004). Firms pay a percentage of the invoice amount to the lender as borrowing fee, and can access 70% to 90% of the invoice amount upfront. Invoice financing/factoring can solve problems associated with overdue payments by customers and difficulties obtaining other types of business credit. In addition, this source of alternative funding can help businesses improve their cash flow.

6.7.2 Leasing Financing

This is a form of bank facility which involves finance of movable assets, plant and equipment (Westley, 2003). These include vehicles, manufacturing equipment, generators, among others. Under leasing, firms don't have to spend a lot of money upfront to use the equipment needed. There are options of a finance lease (at the end of the lease period, the asset under the lease becomes the firm property) or operating lease (at the end of the lease period, the asset under the lease is returned to the lessor or the company that leased it). With leasing, firms do not need to pledge collateral. Banks in Nigeria need to pay attention to this area in order to solve the problem of access to finance for small businesses.

6.7.3 Bank Equity Financing

This is a situation where instead of banks' lending money to small businesses, they actually buy into the firms. This is a policy in Nigeria which is still in existence, but Nigerian banks have abandoned the scheme. At a time, it was a policy whereby a certain percentage of commercial bank profits went into small businesses equity finance. The scheme is called Small and Medium Enterprises Equity Investment Scheme (SMEEIS) which was set up in 2002 by CBN and Bankers' Committee. It entails commercial banks setting aside 10% of their profit before tax annually to finance equity investment in MSMEs. The scheme was meant to help in solving the problem of collateral as it is not a debt financing program and also to ease the access to finance for small businesses. Another advantage of this scheme is that bad loan can actually be converted into equity finance to ease the burden of debt for the small businesses.

6.7.4 Agent Banking

Commercial banks can actually partner with money lenders or the informal credit provider especially in the rural areas to provide credit for the farmers and rural MSMEs without necessarily demanding for collateral that is not readily available or at best not properly documented, or no proper valuation for the property. In doing this, the commercial microfinance banks will be able to leverage on technical know-how of the money lenders and reduce the problem of asymmetric information, as well as spreading the risk. Spreading the risk in the sense that any bad debt will not be borne completely by the bank but will also be shared by the agent (Buri, Cull, Giné, Harten, & Heitmann, 2018).

6.7.5 Relationship-Based Lending

Repeated interactions between lenders and borrowers is often referred to as relationship banking. This relationship is valuable to borrowers especially small firms as it increases their access to finance with better terms of lower interest rate and collateral (Berger & Udell, 1995). There are two major underlining factors that make relationship banking a valuable technology to produce loans at cheaper rates. First, interacting repeatedly with borrowers will help lenders to learn relevant private information about the borrower. It is therefore a hidden information problem mitigator technology. Second, repeated interaction is also a disciplining device in that the future surplus from the relationship can be used to induce current "correct behaviour". Therefore, relationship lending can increase banks' willingness to provide loans for MSMEs, increased credit availability and reduce collateral requirement (Chaochao, 2013). However, Fanta (2016) found that relationship lending only complement collateral and not a substitute for collateral.

6.7.6 Group Lending

Group lending with joint liability allows asset-poor firms to replace physical collateral with social collateral. It is seen as an effective instrument to circumvent information asymmetries because it

incentivises group members to use their social ties to screen, monitor, and enforce loan repayment on their peers. This makes banks to face less risk when lending to joint limited liability groups. This lower risk allows banks to reduce the interest rate. The lower interest rate will also attract less risky loan applications which will further reduce the bank overall risk. Finally, reduction in interest rates increases demand for loan which makes room for more customers to be served.

6.7.7 Credit Guarantee Scheme

Credit guarantee scheme actually takes the burden of collateral pledging from the borrowers to a third party, which in most cases, is the government Zecchini, & Ventura, (2009). Here, the third party guarantees the refund of the loan and the interest in an agreed format if the borrower defaults. Thus, the risk of the likelihood of the borrower defaulting is then shifted to the government. If government is to be able to sustain the guarantee scheme, then the rate of default must be minimal, otherwise, payment of the default loan would constitute a drain on the public purse and this may lead to a possible political attack on the government.

These are some of the ways through which the problem of collateral pledging can be reduce for MSMEs in Nigeria.

6.8 SUMMARY

This chapter sought to explore how collateral affects MSMEs' access to credit facility from the banking institutions. Debt financing especially from the Banks are the most common sources of external finance for MSMEs in the developing economies. However, bank loan is still seriously difficult to obtain for MSMEs, especially the start-up because of information asymmetry between borrowers and lenders. Pledging collateral is often treated as an effective means of solving the problem of information asymmetry. However, collateral is a scarce commodity among small businesses. The aim of these chapter is to established how collateral constitute a constraint to access to credit for MSMEs in Nigeria and to suggest alternative collateral that can help reduce this problem.

Using questionnaire survey method and in-depth interview, we found that collateral was a huge constraint to access to finance with 45% of the firms surveyed revealing that collateral pledging has denied them access to debt financing from the banking institutions. In the light of this finding, we believe that if the alternative collateral, explained in this chapter, is given proper consideration by all stakeholders, it would go a long way to reduce the problem of collateral as an obstacle to debt finance for MSMEs in Nigeria.

CHAPTER SEVEN

SUMMARY, CONCLUSION, AND RECOMMENDATION

7.0 INTRODUCTION

This study set out to investigate the impact of transactions cost and collateral on MSMEs access to finance in Nigeria. Transactions cost as defined throughout this work is the cost that both lenders and borrowers have to bear in order for the exchange of credit to take place. It is a cost that can prevent the credit market from operating efficiently. On the lender's side, transactions cost involves the costs of information gathering, loan administration, monitoring, and enforcement. On the borrower's side, it includes all charges imposed by the lenders beyond the cost of capital (i.e. the interest rate). The higher the transactions cost, the higher the cost of intermediation and the lower the credit facilities (Fachini et al., 2008).

The study was also concerned with the use of collateral to address the perceived high risk in MSME lending. In the literature, low-risk borrowers are able to raise sufficient collateral to distinguish them from high-risk ones. Those who are unable to raise the collateral are considered risky. However, exogenous factors can and usually do violate these assumptions in developing countries and especially for MSMEs. This may be due to the restrictions on the resource endowment of honest borrowers, which may make them unable to reveal their low riskiness through the pledging of sufficient collateral (Cuevas, 1988).

Unfortunately, the existing empirical literature does not provide much insight into transaction costs and collateral lending to MSMEs specifically in the context of Nigeria. Thus, this study has fulfilled an urgent need in the literature by examining transaction costs and collateral as binding constraints on MSMEs' access to bank credit.

Before the investigation of transactions cost and collateral, the study ascertains whether MSMEs are actually fulfilling the role acclaimed by the literature in term of being the mainstay of the economy with regard to employment generation and output creation.

This chapter presents a summary of the thesis, as well as the recommendations and conclusion. In Section 7.1, the objectives set out in the thesis and the mode with which they were addressed are listed. Section 7.2 provides recommendations to the policymakers and all the stakeholders in the financial institutions and MSMEs. Section 7.3 provides the conclusion, which contains the limitations of this thesis and recommendations for further studies.

7.1 SUMMARY

This study set out to investigate the implication of high transaction costs, collateral determinants on MSMEs' access to finance in Nigeria, and the importance of MSMEs in the Nigerian economy.

Specifically, this work investigated the external sources of financing options available for MSMEs in Nigeria. The study identified the existing financing options for small businesses. The study also investigated the role of lending vis-à-vis equity for MSMEs, and investigated the role of Micro Finance Banks (MFBs) in Nigeria and their lending to MSMEs. Finally, the study identified the major obstacles to bank lending to MSMEs as cumbersome application procedures, high interest rates and collateral.

Secondly, we interrogated the importance of MSMEs in employment generation using the non-parametric variance estimation of the locally-weighted scatterplot smoothing (LOWESS) method on the data obtained from World Bank Enterprise Survey data. Generally, MSMEs performed better than large firms in terms of employment generation in the Nigerian economy. This study thus confirmed the role of MSMEs as net creators of jobs. This agrees with Birch's (1979) claim that small businesses are the most important sources of employment generation.

Thirdly, we examined MSMEs' effectiveness in contributing to output, using the three sets of World Bank enterprise survey data for Nigeria. The study also explored the factors that constrain MSMEs' output shares, output composition, market orientation and location in Nigeria. Some of the factors identified include a huge infrastructural gap, inadequate institutional support and low access to credit. The resultant effect is a low investment commitment amongst MSMEs, hampering the output expansion of small businesses in the Nigerian economy. The study employed the non-parametric variance estimation using the locally-weighted scatterplot smoothing (LOWESS) method on three sets of two-points data (2006 and 2003, 2008 and 2002, and 2012 and 2009) of annual fiscal sales for each category of firms (micro, small, medium and large) surveyed. The result suggested that small businesses have a negative productivity growth rate in Nigeria. The result is in line with IFC (2013b) which found small businesses to have the least productivity growth rate amongst firms of all sizes. However, this study departs from the IFC findings which state that small businesses' low productivity is tenable across all sectors of the economy. We found that small businesses actually recorded high productivity growth rates in some subsectors of the economy that specialise in product customisation such as garments, metal works, and furniture. Therefore, this study validates the flexible specialisation theory of Piore and Sabel (1984) that emphasises the economic importance of MSMEs in the post-industrial era where product customisation is the new order of production.

Fourthly, we investigated the roles of transaction costs in MSMEs' access to finance. This was done by investigating the impact of transaction costs on access to credit from both the MSMEs and the financial institutions (commercial banks and microfinance banks), using primary data. From the MSMEs, borrowing experience, decision lag, firm size and borrowers' distance to the loan office were investigated. From the financial institutions, cost of information gathering, loan administration, monitoring and loan enforcement were investigated. We used the questionnaire survey method, in-depth interviews and case studies, as well as the annual financial statements of the banks. We

identified interest rates and collateral value as constraints to access to finance for MSMEs. We also found the financial institutions' attitude to MSMEs access to credit not friendly.

Finally, we explored how collateral affects MSMEs' access to credit facility from the financial institutions, using questionnaire survey method and in-depth interview. We found that collateral was a huge constraint to access to finance with 45% of the firms surveyed revealing that collateral pledging has denied them access to debt financing from the banking institutions.

7.2 RECOMMENDATIONS

The recommendations are structured in line with the objectives set out in the thesis thus:

On the financing options available for small businesses in Nigeria, there is a need to intensify efforts in training and educating small business owners on the credit facility options available as well as developing more options which would create more varieties from which small businesses can choose.

On the issue of MSMEs and employment generation, governments and other relevant stakeholders in developing countries dealing with issues of high unemployment should consider MSME support and development as a necessary factor in their effort to reduce unemployment. Furthermore, developing countries such as Nigeria should provide the necessary infrastructure for MSMEs' development through the creation of innovation hubs and clusters to enhance MSMEs' ability to develop and generate more employment.

For MSMEs and output creation, the policy implication of the study is that any targeted intervention in the MSME sector designed to increase productivity, must be channelled into the subsector with the most employee specialisation and product customisation (it also has labour intensity advantage). Furthermore, drawing from a synthesis of the flexible specialisation theory and Pro-SME policy thesis, MSME production hubs similar to what is done in Silicon Valley and New York's garment district should be encouraged as this can help spur MSMEs' output as it prompts easy knowledge transfer and skill adaptation.

On the implications of transaction costs on access to loans for small businesses, in the light of the findings emanating from this study, the financial institutions need to do more to bring down transaction costs of lending. This hopefully can be achieved by investing more in agent banking which would lower operating costs, as well as spreading risk, and ultimately increase credit intermediation to small businesses.

For the impact of collateral on the access to finance for MSMEs, we believe that if the alternative collateral explained in chapter six is given proper consideration by all stakeholders, it would go a long way to reduce the problem of collateral as an obstacle to access finance for MSMEs in Nigeria.

In this light, the financial institutions need to move away from the traditional system of collateral so as to increase intermediation for MSMEs.

7.3 CONCLUSION

This study concludes with the limitations of this study as well as topics for further research. This study has limitations that future research should address. There is a need to conduct studies on issues associated with the demand and/or supply of credit of informal microcredit to small businesses to see how far they have been able to help in order to address the issue of financial constraints on small businesses in Nigeria. Also, other factors constraining the growth of small businesses such as corruption, political instability, infrastructural deficit are in need of scholarly attention. The major limitation of this study is the non-availability of data from the banking institutions to carry out the desired equilibrium level of transaction costs and the true impact of collateral on MSMEs access to credit. We hope this data will be made available in the near future.

References

Abe, M., Troilo, M., Juneja, J.S. & Narain, S. (2012). *Policy Guidebook for SME Development in Asia & the Pacific*. Bangkok, Thailand: United Nations Economic and Social Commission for Asia and the Pacific.

Abor, J., & Biekpe, N. (2006). Small business financing initiatives in Ghana. Problems and Perspectives in Management, 4(3), 69-77.

Adeleke, A.I. (2014). *Informal financial markets in Nigeria*. Understanding Monetary Policy Series 43, Central Bank of Nigeria. Available from: https://www.cbn.gov.ng/Out/2016/MPD/UNDERSTANDING%20MONETARY%20POLICY%20SERIES%20NO%2043.pdf [Accessed: 2018-08-10].

African Economic Research Consortium. (2013). *Youth Unemployment in Africa*. Senior Policy Seminar XV. (online) Available from: https://books.google.com/.../Youth_Unemployment_in_Africa.html?id=a. [Accessed: 2015-08-20].

Ajuwon, O.S. & Ogwumike, F.O. (2013). Uncertainty and foreign direct investment: A case of agriculture in Nigeria. *Mediterranean Journal of Social Sciences*, 4(1), 155-165.

Akande, O. (2012). *Financing SMEs in Nigeria: An evaluation of the SMEEIS initiative*. Unpublished M.Phil. Dissertation, University of Stellenbosch.

Akingunola, R.O. (2011). Small and medium scale enterprises and economic growth in Nigeria: An assessment of financing options. *Pakistan Journal of Business and Economic Review*, *2*(1), 78-97.

Aliero, I.H., and Yusuf M.M., (2017). Analysis of Constraints to Credit Access for SMEs in Sokoto Metropolis. Asian Journal of Economic Modelling. 5(2), 176-174. Downloaded from: http://www.aessweb.com/pdf-files/AJEM-2017-5(2)-167-174.pdf

Amoako-Adu, B. & Eshun, J.P. (2018). SME financing in Africa: Collateral lending vs cash flow lending. *International Journal of Economics and Finance*, 10(6).

Anderson, D. (1982). Small industry in developing countries: A discussion of issues. World development, 10(11), 913-948.

Aruwa, S.A. & Suleiman, A.S. (2004). Financing options for small and medium scale enterprises in Nigeria. *Nigerian Journal of Accounting Research, 1*(2). Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1401583

Augusto & Co. (2015). *A review of the Nigerian MSME policy environment*. (Online) Available from: http://fatefoundation.com/policyreport.pdf [Accessed: 2018-08-18].

Ayyagari, M, Demirguc-Kunt, A. & Maksimovic, V. (2011). *Small vs young firms across the world: contribution to employment, job creation, and growth.* Policy Research Working Paper 5631. The World Bank.

Baas, T. & Schrooten, M. (2006). Relationship banking and SMEs: A theoretical analysis. *Small Business Economics,* 27(3), 127-137.

Badulescu, D., & Badulescu, A. (2010). Financial Constraints Facing SMEs: Some Theory and Evidence. Metalurgia International, 15, 169-173.

Bae, S. C., Kim, H. S., & Kwon, T. H. (2017). The Determinants of Foreign Currency Debt Financing: Borrower Incentives or Lender Incentives? Asia-Pacific Journal of Financial Studies, 46(6), 824-852.

Udell, G. F., Bakker, M. R., & Klapper, L. (2004). Financing small and medium-size enterprises with factoring: Global growth and its potential in Eastern Europe. The World Bank.

Banerjee, A.V. & Daflo, E. (2004). *Do firms want to borrow more? Testing credit constraints using a directed lending program*. Discussion Paper 4681. Centre for Economic Policy Research (CEPR).

Bartelsman, E., Haltiwanger, J. & Scarpetta, S. (2013). Cross-country differences in productivity: The role of allocation and selection. *The American Economic Review, 103*(1), 305-334.

Beck, T. & de la Torre, A. (2007). The basic analytics of access to finance service. *Financial Markets, Institutions and Instruments, 16*(2), 79-117.

Beck, T. & Demirguc-Kunt, A. (2005). Small and medium-size enterprises: access to finance as a growth constraint. *Journal of Banking and Finance, 30*(11), 2931-2943.

Beck, T., A. Demirgüç-Kunt, and R. Levine. (2003). “Law, Endowments and Finance,” Journal of Financial Economics 70, 137-81.

Beck, T., Demirguc-Kunt A., Laeven, L. & Levine R. (2008). Finance, firm size and growth. *Journal of Money, Credit and Banking*, *40*(7), 1379-1405.

Beck, T., Demirguc-Kunt, A. & Levine, R. (2005). SMEs, growth, and poverty: cross-country evidence. *Journal of Economic Growth*, *10*(3), 199-229.

Beck, T., Demirguc-Kunt, A., & Maksimovic, V. (2005). Financial and legal constraints to firm growth: does size matter? *The Journal of Finance, 60*(1), 137-177.

Beck, T., Demirguc-Kunt, A., Laeven, L. & Maksimovic, V. (2006). The determinants of financing obstacles. *Journal of International Money and Finance, 25*(6), 932-952.

Benston, G.J. & Smith, Jr, C.W. (1976). A transactions cost approach to the theory of financial intermediation. *The Journal of Finance*, *31*(2), 215-231.

Berger, A.N. & Udell, G.F. (1995). *Relationships lending and lines of credit in small firm finance*. *Journal of Business*, *68*, 351-382.

Berger, A.N. & Udell, G.F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking & Finance*, *22*(6-8), 613-673.

Berger, A.N. & Udell, G.F. (2002). Small business credit availability and relationship lending: The importance of bank organisational structure. *The Economic Journal*, *112*(4), 77-90.

Berger, A.N., Frame, W.S. & Ioannidou, V. (2011). *Re-examining the empirical relation between loan risk and collateral: the roles of collateral characteristics and types*. Working Paper Series. WP 2011-12. Federal Reserve Bank of Atlanta.

Besley, T. (1994). How do market failures justify intervention in rural credit markets? *The World Bank Research Observer*, 9(1), 27-47.

Bester, H. (1985). *Screening versus rationing in credit markets with imperfection. American Economic Review*, *75*(1985). 850-855.

Biggs, T. (2002). *Is small beautiful and worthy of subsidy? Literature review*. Washington, DC: International Finance Corporation (IFC).

Biggs, T., Ramachandran, V. & Shah, M.K. (1998). *The determinants of enterprise growth in sub-saharan africa: evidence from the regional program on enterprise development*. Regional Program for Enterprise Development Discussion Paper, 103.Washington, DC: World Bank.

Bing Xu (2018). Permissible collateral and access to finance: Evidence from a quasi-natural experiment. Bank of Finland Institute for Economies in Transition (BOFIT) Discussion paper 3/2018. Available from: https://helda.helsinki.fi/bof/bitstream/handle/123456789/15148/dp0318.pdf;jsessionid=D43D5566DBF692C0D789FDB87F636FA4?sequence=1

Binks, M. R. & Ennew, C. T. (1996). Growing firms and the credit constraint. *Small Business Economics*, 8(1), 17-25.

Birch, D.G. (1979). *The job generation process*. MIT Program on Neighbourhood and Regional Change, Cambridge.

Birch, D.G. (1987). *Job creation in America: How our smallest companies put the most people to work*. New York: Free Press.

Birthal, P.S., Joshi, P.K. & Gulati, A. (2005). *Vertical coordination in high-value commodities.* No. 85. International Food Policy Research Institute (IFPRI), USA.

Blazy, R. & Weill, L. (2013). Why do banks ask for collateral in SME lending? *Applied Financial Economics*, 23(13), 1109-1122.

Bolton, C.R. (1971). *Report of the Committee of Inquiry on Small Firms*. Cmnd Series 4811. London: HMSO.

Boot, A.W.A., Thakor A.V. & Udell, G.F. (1991). Secured lending and default risk: equilibrium analysis, policy implications, and empirical results. *Economic Journal, 101*, 458-472.

Bowale, E.I.K., and Akinlo, A.E. (2012). Determinants of small and medium scale enterprises (SMEs) performance and poverty alleviation in developing countries: Evidence from South-west Nigeria. *European Journal of Humanities and Social Sciences*, 17(1), 848-863.

Brown, C., Hamilton, J. & Medoff, J. (1990). *Employers large and small*. Cambridge, MA: Harvard University Press,

Buri, S., Cull, R., Giné, X., Harten, S. & Heitmann, S. (2018). The Pros and Cons of Agent Banking: Evidence from Senegal. World Bank Finance & PSD Impact, Issue 48, May, 2018. Available from: https://openknowledge.worldbank.org/bitstream/handle/10986/29853/126040-BRI-Brief-IN-PUBLIC.pdf?sequence=1&isAllowed=y

Carbo-Valverde, S., Rodriguez-Fernandez, F. & Udell, G. F. (2009). Bank market power and SME financing constraints. *Review of Finance, 13*(2), 309-340.

CBN statistical bulletin (2016). Available in this CBN website: https://www.cbn.gov.ng/documents/Statbulletin.asp

Central Bank of Nigeria website. Available from: https://www.cbn.gov.ng/Out/2014/DFD/MSMEDF%20GUIDELINES%20%20.pdf

https://www.cbn.gov.ng/devfin/Microfinance.asp

https://www.cbn.gov.ng/devfin/acgsf.asp

https://www.cbn.gov.ng/Devfin/smeeispage.asp

https://www.cbn.gov.ng/Devfin/yedp.asp

Cerulli, G. (2012). *A new STATA routine for estimating binary treatment models with heterogeneous response to treatment under observable and unobservable selection*. Working Papers 3. CNR-Ceris.

Chaochao, L. (2013). The development of the relationship lending theory in China. *Journal of Convergence Information Technology, 8*(4). 119-126. Available from: http://www.globalcis.org/jcit/ppl/JCIT2892PPL.pdf

Chemmanur T.J. & Chen Z. (2006). Venture Capitalists versus Angels: The Dynamics of Private Firm Financing Contracts. Available from: https://www2.bc.edu/thomas-chemmanur/paper/angel5302003.pdf

Chenery, H.B. & Taylor, L. (1968). Development patterns: among countries and over time. *The Review of Economics and Statistics*, 391-416.

Chijioke, M.I. (2016). Strategies to sustain small-and-medium sized business enterprises. Walden Dissertations and Doctoral Studies, Walden University ScholarWorks. Available from: https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=4249&context=dissertations

Chowdhury, A. (1999). Political economy of macroeconomic management: The need for institutional change. *International Journal of Social Economics*, 26(1/2/3), 389-401.

CIA (2017). *World Factbook.* https://www.cia.gov/library/publications/the-world-factbook/rankorder/2208rank.html

Claus, I. & Grimes, A. (2003). *Asymmetric information, financial intermediation, and the monetary transmission mechanism: a critical review.* New Zealand Treasury Working Paper 03/19. 2003.

Cleveland, William S. (1979). Robust Locally Weighted Regression and Smoothing Scatterplots, Journal of the American Statistical Association 74, 1979, 829-836.

Coase, R.H. (1937). The Nature of the Firm. Economia. 4(16), 386-405.Available from: https://onlinelibrary.wiley.com/doi/full/10.1111/j.1468-0335.1937.tb00002.x [Accessed: 2019-01-27].

Coase, R.H. (1960). The problem of social cost. In *Classic papers in natural resource economics* (87-137). London: Palgrave Macmillan.

Coleman, S., Cotei, C., & Farhat, J. (2016). The debt-equity financing decisions of US startup firms. Journal of Economics and Finance, 40(1), 105-126.

Cuevas, C. E. & Graham, D. H. (1986). Rationing agricultural credit in developing countries: The role and determinants of transaction costs for borrowers. In Agriculture in a turbulent world economy, *Proceedings of the Nineteenth International Conference of Agricultural Economists* held at Malaga, Spain 26, 680-686.

Cuevas, C.E. & Douglas, H.G. (1985). *Transaction costs of borrowing and credit rationing in agriculture: a simultaneous equations approach*. ESO 1180. Ohio State University.

Cuevas, C.E. & Douglas, H.G. (1988). *Transaction costs of borrowing and credit rationing in developing countries*. Economics and Sociology Occasional Paper No. 1470. Columbus, OH: Department of Agricultural Economics and Rural Sociology, Ohio State University.

Dalberg Global Development Advisors. (2011). *Report on support to SMEs in developing countries through financial intermediaries*. Dalberg SME Briefing Paper 2011.

Datta, A.D., Grover, R., Leyva, L., Oikawa, J. & Shi, A. (2012). *IFC jobs study assessing private sector contributions to job creation and poverty reduction*. IFC Publication.

Davis, S.J., Haltiwanger, J.C. & Schuh, S. (1996a). Small business and job creation: dissecting the myth and reassessing the facts. *Small Business Economics*, 8, 297-315.

Davis, S.J., Haltiwanger, J.C. & Schuh, S. (1996b). *Job creation and destruction*. Cambridge, MA: MIT Press.

Davydenko, S. A. & Franks, J.R. (2008). Do bankruptcy codes matter? A study of defaults in France, Germany, and the UK. *The Journal of Finance, 63*(2), 565-608.

Decker, R.A., Haltiwanger, J., Jarmin, R.S. & Miranda, J. (2014). The role of entrepreneurship in US job creation and economic dynamism. *Journal of Economic Perspectives, 28*(3), 3-24.

Degryse, H. & Van Cayseele, P. (2000). Relationship lending within a bank-based system: Evidence from European small business data. *Journal of Financial Intermediation, 9*(1), 90-109.

Deloite Nigeria (2018). Economic Recovery and Growth Plan (ERGP): An Assessment opf The Journey So Far. Available from: http://www.mondaq.com/Nigeria/x/716720/Economic+Analysis/Economic+Recovery+And+Growth+Plan+ERGP+An+Assessment+Of+The+Journey+So+Far

De Mooij, R. A., & Keen, M. (2016). Debt, taxes, and banks. Journal of Money, Credit and Banking, 48(1), 5-33.

Dhumale, R. & Sapcanin, A. (1999). *An application of Islamic banking principles to microfinance*. Study by the Regional Bureau for the Arab States. United Nations Development.

Dogondaji, S.D. (2006). *Financing small and medium scale enterprises in Nigeria: an empirical study of the impact of the institutional arrangement in financing in Kano State, Nigeria*. Ph.D. Thesis, Department of Economics, Usman Danfodiyo University, Sokoto, Nigeria.

Duan, H., Han, X. & Yang, H. (2009). An analysis of causes for SMEs financing difficulties. *International Journal of Business and Management, 4*(6), 73-75.

Ekeledo, I. & Bewayo, E. (2009). Challenges and opportunities facing African entrepreneurs and their small firms, *International Journal of Business Research, 9*(3).

Ekwem, I. (2011). Small and medium scale enterprises development in Nigeria: Constraints and policy options. Master of Development Finance Thesis submitted to the University of Stellenbosch Business School.

ESCAP (2009), Globalisation of Production and the Competitiveness of Small and Medium-sized Enterprises in Asia and the Pacific: Trends and Prospects. Studies in Trade an Investment, No 65. Bangkok, United Nations.

Evbuomwan, G.O., Ikpi, A.E., Okoruwa, V.O. & Akinyosoye, V.O. (2012). Preferences of micro, small and medium scale enterprises to financial products in Nigeria. *Journal of Agricultural Economics and Development*, *14*, 80-98.

Fachini, C., Ramirez, D.B. & de Souza Lima, R.A. (2008). the transaction costs of lenders and borrowers in a Brazilian microcredit organization. *Savings and Development*, 32(4). 381-407.

Fajana, S. (2000). Functioning of the Nigerian labour market. Labofin.

Fanta, A. B. (2016). Complementarity between relationship lending and collateral in SME access to bank credit: evidence from Ethiopia. Journal of African Business, 17(3), 308-318.

Feder, G., Tongroj, O. & Tejaswi, R. (1988). Collateral, guaranties and rural credit in developing countries: Evidence from Asia. *Agricultural Economics, 2*, 231-245.

Ferreira, F.H., Molinas Vega, J.R., Paes de Barros, R. & Saavedra Chanduvi, J. (2008). *Measuring inequality of opportunities in Latin America and the Caribbean*. The World Bank.

Figueiredo Filho, D.B., Paranhos, R., Rocha, E.C.D., Batista, M., Silva Jr, J.A.D., Santos, M.L.W.D. & Marino, J.G. (2013). When is statistical significance not significant? *Brazilian Political Science Review, 7*(1), 31-55.

Fink, A. (2010). *Conducting research literature review. From the internet to paper* (3rd edition). Los Angeles: Sage.

Freedman, D.M. & Nutting M.R., (2015). A Brief History of Crowdfunding. Available from: https://www.freedman-chicago.com/ec4i/History-of-Crowdfunding.pdf

FSS 2020, (2007) SME sector Report.

Gambold, B. (2008). *Improving access to finance for SME: International good experiences and lessons for Mongolia*. WP 438. Tokyo, Japan: Institute of Development Economics.

Gbandi, E.C. & Amissah, G. (2014). Financing options for small and medium enterprises (SMEs) in Nigeria. *European Scientific Journal, 10*(1).

Hainz, C., Weill, L. & Godlewski, C.J. (2013). Bank competition and collateral: Theory and evidence. *Journal of Financial Services Research, 44*(2), 131-148.

Haltiwanger, J., Jarmin, R. S., & Miranda, J. (2013). Who creates jobs? Small versus large versus young. Review of Economics and Statistics, 95(2), 347-361.

Hamilton, R.T. & Fox, M.A. (1998). The financing preferences of small firm owners. *International Journal of Entrepreneurial Behavior & Research, 4*(3), 239-248.

Hanedar, E. Y., Broccardo, E., & Bazzana, F. (2014). Collateral in emerging economies. In *Emerging markets and the global economy: A handbook*, 383-411. United Kingdom: Academic Press, Elsevier.

Hartarska, V. & Gonzalez-Vega (2006). What affects new and established firms' expansion? Evidence from small firms in Russia. *Small Business Economics, 27*(2-3), 119-206.

Heinonen, J., Pukkinen, T. & Nummela, N. (2004). *To grow or not to grow? An analysis of internationally growth-oriented Finnish SMEs*. In 30th EIBA Annual Conference, Slovenia, December (pp. 5-8).

Holloway, G.J., Barrett, C.B. & Ehui, S. K. (2005). Bayesian estimation of the double hurdle model in the presence of fixed costs. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2633551 [Accessed: 2018-08-18].

Hoque, M. Z., Sultana, N. and Thalil, T. (2016), Credit rationing's determinants of small and medium enterprises (SMEs) in Chittagong, Bangladesh, Journal of Global Entrepreneurship Research, 6, pp. 1-23.

Hoselitz, B. F. (1959). Small industry in underdeveloped countries. The Journal of Economic History, 19(4), 600-618.

Huang, Y. (2010). Debating China's economic growth: The Beijing consensus or the Washington consensus. Academy of Management Perspectives, 24(2), 31-47.

Hussaini, I., & Mu'azu, M. (2017). Analysis of constraints to credit access for SMEs in Sokoto Metropolis. *Asian Journal of Economic Modelling*, *5*(2), 167-174.

Iarossi, G., Mousley, P. & Radwan, I. (2009). *An assessment of the investment climate in Nigeria*. ICA 2008 Survey in Nigeria. World Bank Publications. Available from: http://siteresources.worldbank.org/INTAFRSUMAFTPS/Resources/NIGERIA_ICA_EBOOK..pdf [Accessed: 2015-08-18].

IFC (2013a). Closing the credit gap for formal and informal micro, small and medium enterprises. (Online) Available from: http://www.ifc.org/wps/wcm/connect/4d6e6400416896c09494b79e78015671/Closing+the+Credit+Gap+Report-FinalLatest.pdf?MOD=AJPERES [Accessed: 2015-08-18].

IFC (2013b). *IFC Jobs Study: Assessing private sector contributions to job creation and poverty reduction*. January 2013. (Online) Available from: http://www.ifc.org/wps/wcm/connect/0fe6e2804e2c0a8f8d3bad7a9dd66321/IFC_FULL+JOB+STUDY+REPORT_JAN2013_FINAL.pdf?MOD=AJPERES [Accessed: 2015-08-18].

Igwe, K.C. & Egbuson, O.M. (2013). determinants of transaction costs for borrowers among farmers in Ikwuano Local Government Area, Abia State, Nigeria. *American Journal of Rural Development*, *1*(5), 116-120.

International Food Policy Research Institute (IFPRI). (2008). *Distribution, growth, and performance of microfinance institutions in Africa, Asia, and Latin America*. FCND Discussion Paper No. 114.

International Labour Organization (ILO). (1982). *Resolutions concerning economically active population, employment, unemployment and underemployment.* Adopted by the 13th International Conference of Labour Statisticians, October 1982, Para 10.

International Labour Organization (ILO). (2013). *Global employment trends 2013: Recovering from a second jobs dip*. (Online) Available from: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_202326.pdf [Accessed: 2015-11-12].

International Labour Organization (ILO). (2015). *Small and medium-sized enterprises and decent and productive employment creatio*n. International Labour Conference 104th Session.

Isa, M.N. & Siyan, P. (2016). Analysing factors responsible for road traffic accidents along Kano-Kaduna-Abuja dual carriageway Nigeria. *Journal of Economics and Sustainable Development, 7*(12), 156-163.

Isern, J., Agbakoba, A., Flaming, M., Mantilla, J., Pellegrini, G. & Tarazi, M. (2009). *Access to finance in Nigeria: microfinance, branchless banking, and SME finance*. Washington, DC: CGAP. Checked at https://www.cgap.org/sites/default/files/CGAP-Access-to-Finance-in-Nigeria-Microfinance-Branchless-Banking-and-SME-Finance-Jan-2009.pdf.

Jaffee, D.M. & Russell, T. (1976). Imperfect information, uncertainty, and credit rationing. *Quarterly Journal of Economics. 90*, 651-666.

Jimenez, G. & Saurina, J. (2004). Collateral, type of lender and relationship banking as determinants of credit risk. *Journal of Banking and Finance, 28*, 2191-2212.

Jimenez, G., Salas, V. & Saurina, J. (2006). Determinants of collateral. *Journal of Financial Economics, 81,* 255-281.

Jimenez, G., Salas, V. & Saurina, J. (2009). Organizational distance and the use of collateral for business loans. *Journal of Banking and Finance, 33*, 234-243.

Kihimbo, B.W., Ayako, B.A. & Omoka, K.W. (2012). Collateral requirement for financing of small and medium enterprises in Kakamega Municipality, Kenya. *International Journal of Current Research*, 4(6), 021-026.

Kimberly, J.R., Kimberly, J. & Miles, R. H. (1980). *The organizational life cycle: Issues in the creation, transformation, and decline of organizations*. Jossey-Bass Inc Pub.

Klapper, L., Laeven, L. & Rajan, R. (2006). Entry regulation as barrier to entrepreneurship. *Journal of Financial Economics, 82*(3), 591-629.

KPMG (2015). KPMG sector report on construction and infrastructure in Africa. (Online) Available from: https://www.kpmg.com/.../Construction%20and%20Insurance%202015.pdf. [Accessed: 2015-08-18].

KPMG. (2014). MSME banking study: strengthening access to finance for MSMEs in Nigeria. (Online) Available from: http://sme.firstbanknigeria.com/wp-content/uploads/2015/01/MSME-Banking-Study-2014.pdf [Accessed: 2015-08-18].

Kropp, E. (1990). *Financial systems for the benefit of the rural poor: appropriate financial systems in support of microenterprise development*. Report of the International Conference on Savings and Credit for Development. Klarskovgard, Denmark, 28-31 May.

Lacornu, M.R., McMalon, R.G.P., Forsaith, D.M. & Stanger, A.M.J. (1996). The small enterprise financial objective function. *Journal of Small Business Management,* 1-14.

Little, I.M. (1987). Small manufacturing enterprises in developing countries. The World Bank *Economic Review, 1*(2), 203-235.

Mahembe, E. (2011). *Literature review on small and medium enterprises' access to credit and support in South Africa*. Report prepared for National Credit Regulator (NCR). Pretoria: Underhill Corporate Solutions.

Maksimovic, V., Ayyagari, M, & Demirgüç-Kunt, A. (2007). *Firm innovation in emerging markets: the role of governance and finance*. Policy Research Working Paper 4157. Washington, DC: World Bank. [Online] Available from: http://wber.oxfordjournals.org/content/22/3/383.full [Accessed: 2015-08-18].

Mande, V., Park, Y. K., & Son, M. (2012). Equity or debt financing: does good corporate governance matter? Corporate Governance: An International Review, 20(2), 195-211.

Masuko, L. & Marufu, D. (2003). *The determinants of transactions cost and access to credit by SMEs and the poor in Zimbabwe*. ILO Research Paper 03-9. International Labour Organization.

Mazanai, M. & Fatoki, O. (2012). Access to finance in the SME sector: A South African perspective.

Menkhoff, L., Neuberger, D. & Suwanaporn, C. (2006). Collateral-based lending in emerging Markets: Evidence from Thailand. *Journal of Banking and Finance*, *30*(1), 1-21.

Menkhoff, L., Neuberger, D., & Rungruxsirivorn, O. (2012). Collateral and its substitutes in emerging markets' lending. *Journal of Banking & Finance, 36*(3), 817-834.

Mensah, S. (2004). *A review of SME financing schemes in Ghana*. In UNIDO regional workshop of financing small and medium scale enterprises, Accra, Ghana. *3*(2), 369-281.

Mordi C.N.O, Anyanwu C.M., Adebusuyi B.S., Odey L.I., Amoo B.A.G., Mbutor M.O., Adebayo O.M., Akpan N.N., Igue N.N., Derek I., Belonwu M. & Zimboh S.T. (2014). Credit Delivery to Small and Medium Enterprises: Post Bank Consolidation in Nigeria. Central Bank of Nigeria Occasional Paper No. 53. Pg 21-22. Accessed from https://www.cbn.gov.ng/out/2015/rsd/credit%20delivery%20to%20small%20and%20medium%20enterprises-post%20bank%20consolidationin%20nigeria.pdf

Morduch, J. (1999). The microfinance promises. *Journal of Economic Literature*, *37*(4), 1569-1614.

Myers, S.C. & Majluf, N.S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187-221.

Myers, S.C. (1984). The capital structure puzzle. *The Journal of Finance, 39*(3), 574-592.

Natamba, B. (2013). Transaction costs and outreach of microfinance institutions in Uganda. Issues in Business Management and Economics, 1(6), 125-132.

National Bureau of Statistics data (2010).

National Bureau of Statistics. (2014).

National Population Commission (NPoC). (2013).

Neumark, D., Zhang, J., and Wall B., (2007). Employment Dynamics and Business Relocation: New Evidence from the National Establishment Time Series, Research in Labour Economics 26, 39-83.

Obi, J., Ibidunni, A. S., Tolulope, A., Olokundun, M. A., Amaihian, A. B., Borishade, T. T., & Fred, P. (2018). Contribution of small and medium enterprises to economic development: Evidence from a transiting economy. Data in brief, 18, 835-839.

OECD (2006). The SME Financial Gap: Theory and Evidence. Financial Market Trends, Volume 2. Paris.

OECD (2015). New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments. Analytical result presented to the G20 Finance Ministers and Central Bank Governors at their meeting on 9-10 February, 2015 in Istanbul, Turkey.

Ogujiuba, K.K., Ohuche, F.K. & Adenuga, A.O. (2004). *Credit availability to small and medium scale enterprises in Nigeria: Importance of new capital base for banks – background and issues*. AIAE 2004 Working Paper.

Oke, J.O. (2005). *Influence of microfinance delivery by Non-Government Organizational (NGOs) on rural poverty alleviation in South-western Nigeria.* PhD Thesis submitted to the Department of Agricultural Economics, Obafemi Awolowo University, Ile-Ife, Osun State.

Okorie, A. (2005). *The role of multinational oil companies.* Term Paper E297c, Spring Quarter 2005. Stanford University, USA. (Online) Available from: https://web.stanford.edu/class/e297a/NIgerian%20Oil%20-%20The%20Role%20of%20Multinational%20Oil%20Companies.doc [Accessed: 2017-05-05]

Olomola, A.S. (1999). Determinants of smallholders' transaction cost of procuring non-bank loans in Nigeria. *Savings and Development*, *23*(1), 95-108.

Onugu, B.A.N. (2005). SMEs in Nigeria: problems and prospects. A PhD Thesis submitted to the St. Clements University, USA.

Osmond, O.N. & Paul, O.C. (2016). Small and Medium Scale Enterprises Financing In Nigeria: Problems and Prospects. *International Journal of Innovative Social Sciences & Humanities Research*, *4*(1), 77-86.

Otrok, C. & Whiteman, C.H. (1998). Bayesian leading indicators: measuring and predicting economic conditions in Iowa. *International Economic Review*, 997-1014.

Oxford Business Group. (2010). *Nigeria: Reviving the textiles sector*. http://www.oxfordbusinessgroup.com/news/nigeria-reviving-textiles-sector.

Pack, H. (1993). Productivity and industrial development in sub-Saharan Africa. World Development, 21(1), 1-16.

Pandula, G. (2011, February). An empirical investigation of small and medium enterprises' access to bank finance: The case of an emerging economy. In Proceedings of ASBBS Annual Conference.

Park, J., Lim, B.C. & Koo, J.H. (2008). Developing the capital market to widen and diversify SME financing: the Korean experience. *Korea Institute of Finance*, *829*(28), 521-530.

PenCom. (2017). *Monthly report.* https://www.pencom.gov.ng/wp-content/uploads/2018/02/DECEMBER-2017-PENSION-ASSETS-2.pdf

Penrose, E.T. (1952). Biological analogies in the theory of the firm. *The American Economic Review, 42*(5), 804-819.

Penrose, E.T. (1959). *The theory of the growth of the firm*. New York: Sharpe.

Piore, M.J. & Sabel, C.F. (1984). *The second industrial divide: possibilities for prosperity*. Basic Books.

Polski, M. M. (2001). Measuring transaction costs and institutional change in the US commercial banking industry. Institute for Development Strategies Discussion Paper, Indiana. Available from: https://www.researchgate.net/publication/237428985_Measuring_Transaction_Costs_and_Institutional_Change_in_the_US_Commercial_Banking_Industry_By

Punch Newspaper (2013). *Reviving Nigeria's ailing textile industry for job creation.* (Online) Available from: https://punchng.com/reviving-textile-industry-job-creation/ [Accessed: 2015-08-18].

Rahman, A., Rahman, M.T., & Ključnikov, A. (2016). Collateral and SME financing in Bangladesh: an analysis across bank size and bank ownership types. *Journal of International Studies*.

Rauch J.H. & Hendrickson, J.M. (2004). Does bank consolidation hurt the small business borrower? *Small Business Economics, 23*(3), 219-26. Checked at https://link.springer.com/article/10.1023/B:SBEJ.0000032030.01961.ce

Ray, D. (1998). *Development Economics*. Princeton, NJ: Princeton University Press.

Rostow, W.W. (1960). *The stages of growth: A non-communist manifesto*. Cambridge University Press.

Rottke, N. B., & Gentgen, J. (2008). Workout management of non-performing loans: A formal model based on transaction cost economics. Journal of Property Investment & Finance, 26(1), 59-79.

Ruud, P. (2000). *An introduction to classical econometric theory*. Oxford: Oxford University Press.

Sanusi, L.S. (2010). *Growth prospects for the Nigerian economy*. Convocation Lecture.

Scherr, F.C., Sugrue, T.F., & Ward, J.B. (1993). Financing the small firm start-up: Determinants of debt use. *The Journal of Entrepreneurial Finance, 3*(1), 17-36.

Schmidt, H., & Schmidt, S. (2008). Capital structure: A Swedish real estate study. http://arc.hhs.se/download.aspx?mediumid=495.

Schumpeter, J.A. (1934). *The theory of economic development*.

Schumpeter, J.A. (1942). *Capitalism, socialism, and democracy*. New York: Harper.

Sharma, P. & Gounder, N. (2011). *Obstacles to financing micro and small enterprises: Empirical evidence from a small island developing state*. Discussion Papers in Finance. Queensland: Griffith University, Department of Accounting, Finance and Economics. Checked at https://econpapers.repec.org/paper/grifpaper/finance_3a201110.htm

Small and Medium Enterprise Development Agency (SMEDAN) and National Bureau of Statistics (NBS) (2013). *National MSME Survey Report 2013.* (http://smedan.gov.ng/images/NBS2015/NBS%202013Final%20Copy.pdf).

Smallbone, D. & Wyer, P. (2000). Growth and development in the small firm. Enterprise and small business, pp.100-126.

Smallbone, D. (1998). *SME, employment generation, and regional development*. Global-local interplay in the Baltic Sea region. Paper from the 5th International Nordic-Baltic conference, Pamu. (Online) Available from: http://www.geo.ut.ee/nbc/paper/paper/smallbone.htm. [Accessed: 2015-09-11].

Smallbone, D., Leig, R. & North, D. (1995). The characteristics and strategies of high growth SMEs. *International Journal of Entrepreneurial Behaviour & Research*, *1*(3), 44-62.

Smallbone, D., Piasecki, B., Venesaar, U., Todorov, K. & Labrianidis, L. (1998). Internationalisation and SME development in transition economies: an international comparison. *Journal of Small Business and Enterprise Development, 5*(4), 363-375.

Solow, R. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics, 70*, 65-94.

Sopranzetti, B. J., 1998. The economics of factoring accounts receivable. Journal of Economics and Business 50, 339-359.

Steijvers, T., Voordeckers, W., & Vanhoof, K. (2010). Collateral, relationship lending and family firms. *Small Business Economics, 34*(3), 243-259.

Stiglitz, J.E. & Weiss A. (1981). Credit rationing in markets with imperfect information. *American Economic Review. 71*(3), 393-410.

Storey, D.J., (1994). Understanding the Small Business Sector. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship. Available at SSRN: https://ssrn.com/abstract=1496214

Taiwo, J.N., Falohun, T.O. & Agwu, E. (2016). SMEs financing and its effects on Nigerian economic growth.

Tambunan, T. (2008). SME development, economic growth, and government intervention in a developing country: The Indonesian story. *Journal of International Entrepreneurship 6*(4), 147-167.

The Nigerian Stock Exchange website. Available from: http://www.nse.com.ng/Listings-site/listing-your-company/asem

Titman, S., & Wessels, R. (1988). The determinants of capital structure choice. *The Journal of Finance, 43*(1), 1-19.

Valle, F. (2012). *Exploring opportunities and constraints for young agro-entrepreneurs in Africa.* Rome, Italy: Food and Agriculture Organization (FAO).

Wald, J.K. (1999). How firm characteristics affect capital structure: an international comparison. *Journal of Financial Research, 22*(2), 161-187.

Westley, G. D. (2003). Equipment leasing and lending: A guide for microfinance. Inter-American Development Bank.

Weston, J.F. & Brigham, E.F. (1970). *Managerial Finance* (3rd edition). London: Holt, Rinehart & Winston.

Williams, S. (2012). Report on Africa's Youth, the African Development Bank, and the Demographic Divided. (Online) Available from: www.**afdb**.org/.../**afdb**/.../**AFDB**%20**youth**%20doc.pdf. [Accessed: 2016-02-05].

Wooldridge, J.M. (2010). *Econometric analysis of cross section and panel data*. MIT Press.

World Bank (2010). Africa's Infrastructure: a time for transformation (English). (Online) Available from: http://documents.worldbank.org/curated/en/246961468003355256/Africas-infrastructure-a-time-for-transformation

World Bank. (2015). *World Development Indicators Database*. (Online) Available from: http://data.worldbank.org/datacatalog/world-development-indicators. [Accessed: 2016-02-05].

World Economic Forum. (2015). *Global Competitiveness Report 2013-2014*. Geneva (Online) Available from: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf [Accessed: 2016-02-04].

Yamane, T. (1973). Taro Yamane's formula.

Zambaldi, F., Aranha, F., Lopes, H. & Politi, R. (2011). Credit granting to small firms: A Brazilian case. *Journal of Business Research 64*, 309-15.

Zecchini, S., & Ventura, M. (2009). The impact of public guarantees on credit to SMEs. Small Business Economics, 32(2), 191-206.

Appendix A: Names of local government councils in Lagos state and their population

SN	Local Government Name	Population
1	Alimosho	5,700,714
2	Ajeromi-Ifelodun	745,634
3	Kosofe	665,998
4	Mushin	633,543
5	Oshodi-Isolo	621,789
6	Ojo	598,332
7	Ikorodu	535,811
8	Surulere	504,408
9	Agege	461,123
10	Ifako-Ijaiye	428,812
11	Shomolu	402,992
12	Amuwo-Odofin	318,576
13	Lagos Mainland	317,980
14	Ikeja	313,333
15	Eti-Osa	287,958
16	Badagry	241,437
17	Apapa	217,661
18	Lagos Island	209,665
19	Epe	181,715
20	Ibeju-Lekki	117,542
	Lagos State	**37,013,534**

Appendix B: Analysis of borrower's transaction cost function

```
. regress n_34b n26 n34c n34a n13 n9 n36a n44
```

Source	SS	df	MS		
Model	254.543776	7	36.3633965	Number of obs =	71
Residual	199.822422	63	3.17178447	F(7, 63) =	11.46
				Prob > F =	0.0000
				R-squared =	0.5602
				Adj R-squared =	0.5114
Total	454.366197	70	6.49094567	Root MSE =	1.781

n_34b	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
n26	-6.08e-09	2.92e-09	-2.09	0.041	-1.19e-08	-2.56e-10
n34c	-.0384747	.0216244	-1.78	0.080	-.0816876	.0047381
n34a	.0302163	.007157	4.22	0.000	.0159142	.0445185
n13	-.0244443	.0099521	-2.46	0.017	-.044332	-.0045566
n9	-.0437654	.0325822	-1.34	0.184	-.1088757	.021345
n36a	-.3527606	.1832232	-1.93	0.059	-.7189028	.0133817
n44	.355835	.1328784	2.68	0.009	.0902988	.6213712
_cons	93.68795	65.17551	1.44	0.156	-36.55492	223.9308

Appendix C: Questionnaire for MSMEs owners survey

Dear Sir/Ma,

I am Seeking your consent to collect your response to this survey.

This survey is part of a PhD study to measure the transaction costs that an enterprise faces in obtaining credit facility from commercial banks, as well as issues with collateral in Nigeria. Please, we would like to ask about your experiences in obtaining credit from a commercial bank in Nigeria to finance your business. Your answers will be kept completely confidential. You and your firm will not be identified to any outside persons or in print. We appreciate your input. It will be very helpful for studying and comparing the costs that business people actually face in obtaining credit in Nigeria. Through this brief survey, your answers will be helpful in identifying the aspect of transaction costs that possess challenge to borrowing from Commercial Banks in Nigeria. Thank you very much for your time and suggestions.

***Note**: This questionnaire is developed for the purpose of a PHD research. Responses to questions contained in this questionnaire will be used for the intended purpose only and will be treated with utmost confidentiality. It is not intended to be used maliciously to gain insight into any particular business dealing in order to exploit it in any way. The University of Stellenbosch has strict ethical guidelines concerning this kind of research and the conduct of this research is guided by those guidelines. Also, note that your participation is voluntary.*

SECTION A
GENERAL INFORMATION

1. Are you the owner of this business? (Yes/No) _____

2. If No, to question 1 above, state your position in business: _____

3. Age of the respondent

AGE	Code	Tick
Less than 20 years	**1**	
21-30 years	**2**	
31-40 years	**3**	
41-50 years	**4**	
51-60 years	**5**	
60 and above	**6**	

4. What does your firm produce? _____

5. State the type of your firm

Type	Code	Tick
Sole proprietorship	1	
Joint ownership/ partnership	2	
Limited liability company	3	
Cooperative	4	
Other (specify): _____	5	

6. State the nature of ownership in your firm

Nature of Ownership	Code	Tick
Local ownership	1	
Foreign ownership	2	
Local & foreign ownership	3	
State owned	4	
Foreign & state ownership	5	
Local & state ownership	6	
Other (Specify): _____		

7. State the sector of your firm

Sector	Code	Tick
Trade (Wholesale and Retail)	1	
Manufacturing	2	
Construction	3	
Power & Energy	4	
Transport	5	
Communication	6	
Finance & Insurance	7	
Hotel and Tourism	8	
Agriculture	9	
Real-estate & Business services	10	
Community, Social & Personal Services	11	
Other (specify):	13	

8. In what year did your firm start operation? _____

9. Is your firm registered with CAC (Yes/No)? _____ If yes when (Year)? _____

10. What is the most important reason why you register or why you should register your firm?

_____

_____

11. Do you belong to any trade association (Yes/No)? _____ if yes, which one?

_____

SECTION B

THE ESTABLISHMENT HISTORY OF EMPLOYEE AND TURNOVER

12. How many employees do you currently have? _____

13. How many individuals are currently working in your firm, including full-time employees and managers, part-time employees, apprentice and family members?

Category	Code	No. of individuals
All individuals who work in the company	1	
How many are permanent full-time	2	
How many are part-time	3	
Other arrangement (specify):_____	4	

14. State the number of full employees during the following years

Year	Number of Employees
2011	
2012	
2013	
2014	
2015	

15. State the firm's total annual sale in the following fiscal years

TURNOVER	2011	2012	2013	2014	2015
<₦1 000 000					
₦1 000 000-₦10 000 000					
₦10 000 000-₦20 000 000					
₦20 000 000-₦30 000 000					
₦30 000 000-₦40 000 000					
₦40 000 000-₦50 000 000					
₦50 000 000+					

16. Does your firm export what you produce (Yes/No)? _____

17. If yes, in the last fiscal year, what percentage of this firm's sale was exported? _____

SECTION C
INFORMATION ON THE RELATIONSHIP WITH FINANCIAL INSTITUTIONS

18. Please name the commercial bank(s) your firm has an account with and the type of account

Name of the Commercial Bank	Type of Account	The year you have been operating the account

19. What are the facilities the bank(s) offers to your firm?

Type	Code	Tick
Mortgage	1	
Term loans	2	
Leasing facility	3	
Overdraft	4	
Trade finance	5	
Foreign exchange line	6	
Brokerage	7	
Trust & Pension services	8	
Other(s)	9	

(specify):		
	10	
	11	

20. What do you like about the bank(s) you are using or rather why did you choose the bank(s)?

_____

_____

_____

_____

_____

21. Does your firm have an account with Microfinance Bank (Yes/No)? _____

22. State the name of the Microfinance Bank _____

23. Do you belong to any finance related group (Yes/No)? _____

SECTION D
INFORMATION ON THE APPLICATION FOR CREDIT

24. Has your firm ever applied for a loan from the commercial/Microfinance bank or microfinance bank before (Yes/No)? _____ if yes, which one? _____

25. If yes, how much? _____

26. Was the loan granted (Yes/No)? _____

27. If you have never applied, why have your firm not applied for credit from commercial/Microfinance bank?

REASON	CODE	Tick
My firm has just started	1	
I don't know all the procedures that must be carried out	2	
The process takes a long time	3	
The process cost a lot of money	4	
I am not interested in Commercial bank loan	5	
Other(s) (Specify):	6	
	7	
	8	
	9	

28. If your firm has applied, how many times?

Code	1	2	3
Times	Once	2 – 4 times	5 times and above
Tick			

29. How many time(s) have your firm succeeded in obtaining credit from commercial/Microfinance bank?

Code	1	2	3
Time(s)	Once	2 – 4 times	5 times and above
Tick			

SECTION E
TRANSACTION COST

30. Please indicate by ticking the charges incurred by your firm on your last loan facilities

Loan related charges	Code	Tick
Application fees	1	
Advance commitment fees	2	
Arrangement fees	3	
Processing and administration fees	4	
Loan monitoring fees	5	
Insurance fees	6	
Legal fees	7	
Stationery fees	8	
Discharge security document fees	9	
Renewal facility fees	10	
Restructuring facility fees	11	
Other(s) (specify):_____	12	
	13	
	14	

31. What are the bank's other charges that you have to pay outside interest rate before assessing your last credit facility? _____

32. Do you have to give bribe before the bank process your loan (Yes/No)? _____

b. If Yes, how much? _____

33. Please indicate

a. What is the duration from when application was submitted to when the loan facility was granted or rejected_____ days/weeks/months/years (circle the time unit)

b. How many times on the average do you/ the person processing the loan have to visit the bank purposely when processing the loan? _____

c. What is the distance (in kilometres) from the firm to the bank? _____

d. What time does it take to travel from the firm to the bank? _____

e. What is the transportation cost from the firm to the bank? _____

f. During each visit to the bank, how many hours on the average do you/the person processing the loan loss?

_____

g. On the average, what is the daily income of the officer from your firm that processes the loan application?

_____

34. Who is the person in the company that processes loan with the bank (tick the appropriate)?

a. Respondent_____

b. Non-respondent owner_____

c. Non-respondent manager/CEO_____

d. Non-respondent other employee (specify the position) _____

35. Please tick the appropriate level of highest year of school completed by the person processing the loan from your firm:

Highest level of Education completed	Code	Tick
Primary school incomplete	1	
Primary school complete	2	
Secondary school incomplete	3	
Secondary school complete	4	
Advance technical school incomplete	5	
Advance technical school complete	6	
University undergraduate program incomplete	7	
University undergraduate program complete	8	
University graduate program incomplete	9	
University graduate program complete	10	
Other (Specify): _____	11	

36. Is this the first time that (you have/this person has) processed loan for the company? Yes/No _____

37. How many days (were you/was this person) actively working to complete this loan application process? _____ days, how many hours per day? _____

38. What will your estimate in monetary unit, the time lost while (you were/this person was) processing the loan for the company? _____

39. In the course of seeking loan, did your firm seek the services or advice from any of the following and how much did it cost if?

Services	Code	Cost of services or advice
Accountant	1	
Lawyer	2	
Government agency	3	
Friend or relative	4	
Industry or trade association	5	
Publications	6	
Internet	7	
Other (specify) _____	8	

40. Please tick the most appropriate interest rate per annum that is charged on most of your loans.

Interest (%)	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 -29	30 - 34	35 – 39	> 40

Code	1	2	3	4	5	6	7	8	9
Tick									

41. Are there hidden charges by the bank on your credit facility (Yes/No)? _____ if yes, how much? ____

SECTION F
COLLATERAL

42. Was loan obtained by your firm backed with collateral (Yes/No)? _____

43. Please tick the most appropriate collateral value that is charged on your firm current loan.

Collateral (%age of loan obtained)	0	1 - 60	61-80	81-100	101-120	121-140	141-160	161-180	>180
Code	1	2	3	4	5	6	7	8	9
Tick									

44. Please tick the most appropriate collateral value that is charged on your firm previous loan

Collateral (%age of loan obtained)	0	1 - 60	61-80	81-100	101-120	121-140	141-160	161-180	>180
Code	1	2	3	4	5	6	7	8	9
Tick									

45. Which item is acceptable as collateral with your bank?

ITEM	CODE	TICK
Mortgages		
Pledged deposits and securities		
Guarantees (Government)		
Lien on Machinery and other equipment		
Pledge or lien on inventory		
Letter of comfort		
Other(s) (specify): _____		

46. Do you know if your bank practices group lending (Yes/No)? _____, if yes,

Have you ever borrowed through group lending (Yes/No)? _____, if yes,

How many times? _____

47. What is your view about the level of collateral the bank request before granting a loan

COLLATERAL	CODE	TICK
Too high	1	
Moderate	2	
Too low	3	
Other (specify): _____	4	

48. With your firm, is collateral affecting access to credit (Yes/No)? _____, if yes,

(i) What do you think you should do about it? _____

_____

_____

(ii) What do you think the bank should do about it? _____

_____

_____

_____

(iii) What do you think the government should do about it? _____

_____

_____

_____

SECTION G
BORROWING EXPERIENCE

49. What will you consider the most traumatic part of obtaining loan from the bank (ranking from top to bottom, i.e. 1 is the highest)?

No	Aspect	Ranking
1	Decision lag (when you applied to when the bank decided)	
2	Distance to the bank	
3	The opportunity cost of time wasted in processing the loan	
4	The administrative cost paid for the loan process	
5	Collateral required for the loan	
6	The borrowing experience is traumatic	
7	Loan monitoring process	
8	The interest rate charged on the loan	
9	The hidden cost charged on the loan	
10	Other Specify	

50. Has your firm ever defaulted in the payment of your loan (Yes/No)? _____

51. Is there any sanction on your firm from the bank (Yes/No)? _____

52. What is the sanction? _____

53. Have you been able to access loan from the same bank thereafter (Yes/No)? _____

b. If no, have you approach another bank for loan (Yes/No)? _____

54. Does your firm currently have a loan with any bank (Yes/No)? _____

55. Has your firm defaulted in any way with the repayment of this current loan (Yes/No)? _____

56. Before now, has your firm had any loan with a bank (Yes/No)? _____

57. Did your firm default in the payment of the loan (Yes/No)? _____

58. If your firm has had a loan before now and have a loan now, the collateral requirement is it the same (Yes/No)?

_____

59. If no, the experience of obtaining a loan now, is it better than the previous one (Yes/No)? _____

60. If your firm has had a loan before now and has a loan now, will you rank the experience the same (Yes/No)?

_____

61. What is the duration of your firm current loan? _____

62. What is the duration of your firm previous loan? _____

63. Your firm previous loan and current loan is it with the same bank (Yes/No)? _____

64. If yes, which bank? _____

65. Has your firm applied for a loan in the commercial bank and it was not granted (Yes/No)?_____

66. If yes to the question above, why?

_____

_____

67. Between commercial banks and microfinance banks, which one does your firm prefer to source credit facility?

_____

68. Which other financial institutions do your firm source credit facility (Please list):

I. _____

II. _____

III. _____

IV. _____

SECTION H
INFORMATION ON THE CHALLENGES CONFRONTING YOUR FIRM

69. What is (are) the major challenge(s) currently facing your firm/business?

_____

_____

_____

70. How can this (these) challenge(s) be overcome?

_____

_____

_____

SECTION I
PLEASE HELP TO LINK US WITH OTHER FIRMS

71. Do you know any other firms that are similar to yours in size and type of activity (Yes/No)? _____

[If yes]

a. Name of the firm_____

b. Activity of the firm_____

c. Could we contact the firm using your name as a reference (Yes/No)? _____

[If yes]

d. Address

_____

_____

e. Telephone _____

f. Individual to speak with _____

72. Do you know any firm who started to apply for a loan and did not get it or did not complete the process because the process was too difficult or time consuming or too expensive (Yes/No)? _____

[If yes]

a. Could we contact that person using you as a reference (Yes/No)? _____

[If yes]

b. Name _____

c. Address

_____

_____

d. Telephone _____

73. Are there any other comment or suggestion you would like to give us?

_____

_____

_____

_____

THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE

RECORD BEFORE START OF INTERVIEW

R1. Interviewer:
R2. Location of firm:
a. City:
b. Local Government:
c. Street:
d. Mobile number of contacts:
e. E-mail (if any):
f. Web site (if any):
g. Name of firm:
h. Gender of respondent (Male/Female):
i. Date of interview (Day/Month/Year):
j. Time of starting interview(hh:msm):
k. Size of the firm:
l. Picture Tagging Number(s):
m. Voice Recording Tagging Number(s):

Firm size by No of Employment	Code	Tick
Micro >=0 and <=5	1	
Small >=6 and <=19	2	
Medium >=20 and <=99	3	
Large >=100	4	

Appendix D: Questionnaire for the Commercial Bank and Microfinance Bank

Dear Sir/Ma,

I am seeking your consent to collect your response to this expert key interview.

This survey is part of a PhD study to measure the transaction costs that bank faces in extending credit facility to small enterprises, as well as issues with collateral in Nigeria. Please, we would like to ask about your bank transaction costs and all issues with collateral in approving/rejecting an application for credit in general and specifically for small enterprises. Your answers will be kept completely confidential. You and your firm will not be identified to any outside persons or in print. We appreciate your input. It will be very helpful for studying and comparing the costs that banks actually face in extending credit to small enterprises in Nigeria. Through this brief survey, your answers will be helpful in identifying the aspect of transaction costs and collateral that poses a challenge for small enterprises in borrowing from Commercial Banks in Nigeria. Thank you very much for your time and suggestions.

***Note**: This questionnaire is developed for the purpose of a PhD research. Responses to questions contained in this questionnaire will be used for the intended purpose only and will be treated with utmost confidentiality. It is not intended to be used maliciously to gain insight into any particular business dealing in order to exploit it in any way. The University of Stellenbosch has strict ethical guidelines concerning this kind of research and the conduct of this research is guided by those guidelines. Also, note that your participation is voluntary.*

SECTION A
GENERAL INFORMATION

1. What is your current position in the bank? _____
2. For how long have you been working in the banking system? _____
3. For how long have you been working in your current position? _____
4. For how long have you been working with this bank? _____
5. Age of the respondent: _____
6. Sex of the respondent: _____
7. Highest academic qualification of the respondent: _____
8. In your own opinion, will you say your bank is small enterprise friendly (Yes/No)? _____
9. If No, give reason(s): _____

_____

_____

_____

SECTION B

INFORMATION ON TRANSACTION COSTS

10. Are there any issues that hinders MSMEs access to finance? _____

_____

11. What is your bank prime lending rate? _____

12. Are there other charges that your bank charge outside the interest rate (Yes/No)? _____

13. If Yes, list the charges with the amount/rate involve in each: _____

_____

_____

14. On the average, specify the amount of time (in days) taking from when an application for loan was accepted and decision taking on granting/rejecting the application: _____

15. Describe the type of information routinely requested by your institution from a corporate borrower (e.g., financial statements, cash flow projections, pro forma statements, etc.) when seeking for a new credit: _____

_____

_____

_____

16.

ITEMS	DESCRIPTION	RESPONDENT ANSWER
Active Portfolio Efficiency	(Transaction cost /Active Portfolio) * 100	

Portfolio Profitability	((Operating revenues – Financial investment cost) / Active portfolio) * 100	
Cost per Borrower	Transaction costs/number of active clients	
Team Productivity (units)	Total number of active clients/number of employees (credit agents and administration team only)	

17. In your own opinion, do you think there is/are any problem(s) with the transaction costs in extending credit to small enterprises? (Yes/No) _____

18. If Yes, please explain: _____

_____

_____

_____

SECTION C

ISSUES WITH COLATERAL

19. Security/Collateral

a. What proportion of corporate lending is secured? (by category)

_____

_____

_____

_____

b. What types of security/collateral do the Bank require?

_____

_____

_____

_____

c. what is the preferred (or most common) form used?

_____

_____

d. in your own opinion how does collateral requirement hinder MSMEs access to credit? _____

_____

_____

e. Describe the key problems that exist in the creation, recording (registration) and enforcement of security and collateral?

_____

_____

_____

_____

_____

THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE